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UGANDA PROTECTORATE.

ANNUAL REPORT

OF THE

Medical Department

FOR THE

Year ended 31st December, 1937.

PRICE : SHS. 3/50.

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Published by Command of His Excellency the Governor.

ENTEBBE:

PRINTED BY THE GOVERNMENT PRINTER, UGANDA.

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MEDICAL DEPARTMENT,

HEADQUARTERS OFFICE,

ENTEBBE, UGANDA.

13th April, 1938.

SIR,

I have the honour to submit for the information of His Excellency the Governor and for transmission to the Right Honourable the Secretary of State, the Medical Report on the Health and Sanitary Conditions of the Uganda Protectorate for the year 1937, together with the Returns, etc., appended thereto.

I have the honour to be,

Sir,

Your obedient servant,

W. H. KAUNTZE,

Director of Medical Services.

THE HONOURABLE

THE CHIEF SECRETARY TO THE GOVERNMENT,

ENTEBBE.

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MAP OF
UGANDA PROTECTORATE

Scale of Miles
0 10 20 30 40 50 60 70 80 90



MEDICAL DEPARTMENT.

ANNUAL REPORT

For the Year ended 31st December, 1937.

SECTION I.—ADMINISTRATION.

Staff.—The department suffered a very serious loss by the sudden death of Dr. E. A. C. Langton, Senior Medical Officer, who in his many years of service in the Protectorate had proved himself a very efficient officer.

2. *General Remarks.*—No new schemes of development were introduced. The policy outlined in 1934 has been steadily pursued, and in certain places the first fruits of it are beginning to appear. The liaison established with the departments concerned in social welfare has become much closer and district policies are more co-ordinated as a result.

3. The establishment of European staff was increased during the year by

1 Medical Officer.

1 Sanitary Inspector.

1 X-ray Operator (post unfilled in 1937).

1 Senior Nursing Sister.

4. The policy of filling as many posts as possible in the medical service with Africans is progressing slowly. It is not intended that any more European staff than is necessary for the efficient carrying out of the duties of the department shall be employed, but there is a definite minimum which is necessary to secure effective supervision at this stage of the development of the African when it is of the utmost importance that he should have all the skilled oversight and guidance possible so that he may be able to profit by his mistakes. It is imperative that members of the African medical staff should be given as much responsibility as they can carry, but this can only be done with safety if sufficiently close supervision is exercised to ensure that the errors they are bound to make can be corrected before any real harm results.

5. *District health work.*—Curative services have been improved by a system of itinerant dressers based on dispensaries, and in certain districts by the multiplication of small single-man dressing posts in replacement of or supplementary to larger dispensaries. The ultimate aim is to provide medical assistance within four to six miles of every African and to associate with this some rapid means of transport which will enable those suffering from serious disease to be evacuated to central institutions where more skilled medical aid is available.

6. It is pleasant to be able to record that in most districts the medical staff has been able to establish such friendly contact with the African that advice on rural sanitation is being heeded, and on all sides notable improvement in the standard of housing, the cleanliness of compounds and the provision of latrines is making itself evident. Discounting those districts where the personality of the district officer and the medical officer may have been largely responsible for the change, there is at least one where the improvements have been introduced by the people themselves, reforms likely to be more lasting than where they come as a direction from an alien administrative staff. A European can never quite look at matters from the African point of view, however conscientiously he may try to do so. His mind is imbued with ideas of sanitation learnt by experience and embodied in English law less than eighty years ago, reaching a standard not even yet beloved by a large part of his own people who prefer warmth and vitiated air to oxygen. It is difficult for him to appreciate the fear of spirits which leads the African to build houses without openings which might admit less desirable things than air or light, or the belief in sorcery which makes him deposit his excreta where it is unlikely to be found by his enemy. Hence the prime essential is to build up an enlightened body of Africans who can be taught to appreciate the scientific reasons lying behind sanitary law, and who will have such an intimate knowledge of the African mind that the cogent arguments which can be brought forward in favour of sanitary ideals can be so framed as to find favour in spite of inherited beliefs.

It must, however, be remembered that even in African homes it is the woman who has the most interest in adopting European ideals of comfort, and it is she who, once persuaded that a certain action is of advantage to herself and her family, will be most insistent on getting it done. And if the woman is the person in the house whose confidence and advocacy for sanitation are to be won, then it must be a woman who must be educated to persuade her, for the ear of the housewife can be best gained by a person of her own sex who can give her advice about the care of the children, about new and better methods of cooking, about the best methods of arranging the house, and about necessary improvements in water supply and conservancy. Recognised as the family adviser, such a person may be able to get instituted those small measures of improved household sanitation which added together will reduce sick rates and death rates, and produce a healthier and, it is to be hoped, a happier people. Female education followed by vocational training as district health nurses is therefore of the greatest importance in building up the African health service. In the coming year two trained African nurses are to be instructed in a health course to fit them to begin district work in an area near Kampala. The method will be on trial but experience in Central Europe gives ground for hope that the experiment will be a success.

7. *Ante-natal and child welfare.*—Much of the work of the European nursing sisters is perforce concentrated on this side of preventive health work, and the gradual fall in mortality rates—if recorded statistics are indeed of any value—is some witness that the work done is not without effect. Little progress has been made in increasing the number of maternity centres, partly because so many of the existing ones require

repairs if not complete rebuilding, and partly because possible extensions are limited by the supply of suitable midwives. An interesting experiment to make more effective use of the number of midwives available is in progress in Hoima, where a district midwife has been posted to the township. Her duties will consist of visiting in their homes ante-natal cases reporting at the hospital and persuading the expectant mother who is unwilling to be confined in the hospital, to send for her when labour starts, and allow her to conduct the confinement in the home. If this experiment succeeds, it may open the way for a great extension of trained supervision of confinements among African women and a corresponding decrease in obstetrical disasters.

8. The provision of cheap housing for Africans is a problem, the solution of which is a matter of some urgency at a time when efforts are being made to improve living conditions in townships, by laying out plots in areas which are zoned for certain classes of housing. A two-roomed house with an iron roof and a cement floor but with pisé-de-terre walls with kitchen, bathplace and pit latrine costs in Jinja about £80, which is a larger sum than any but a wealthy African can afford. The majority of Africans would not even be able to produce the monthly sum which a building society would have to charge to cover interest on a loan and the sinking charges necessary to recover the capital sum advanced in a reasonable period of time. If a better house than the present wattle and daub hut is to be adopted by the general African population, it must not cost more than £20 to build and must require little in the way of yearly maintenance. Experience has shown that the main expense of a house is the provision of an impermeable floor and a sun- and rain-proof roof. It has also been found that the life of pisé-de-terre or sun-dried brick walls is at least thirty years, provided that some protection is given against driving rain by a sand plaster which can be renewed very cheaply when necessary. A still more effective rain-resistant coat is provided by painting the outside of the wall with two coats of cotton seed tar (a cheap article in certain parts of Uganda), the second coat being dusted with sand while still wet. Experiments have been made with a beaten laterite floor covered with Colas, a bitumen preparation. The laterite floor is the first part of the house to be constructed and is built as a platform sufficiently large not only to include the floors of the rooms but also about a foot round the outside of the walls. This is then given a thin filling coat of Colas, followed by a second application when the first has set. On this ant-proof and damp-proof platform the walls of sun-dried or pressed-earth brick, or of pisé-de-terre are built. Trial has been made of a roof which consists of packing-case boards laid on light rafters and covered with strips of hessian, these being then painted with two coats of diluted Colas. So far it has proved to be sun- and rain-proof; it is cheap, cooler than corrugated iron, easily erected by unskilled hands, and has the advantage of offering no harbourage for rats. There has not yet been time to determine how long it will last and how often re-painting with Colas will be necessary. As this preparation costs about Sh. 1 to Shs. 1/20 a gallon, and this quantity will provide two coats for 100 square feet of roof, maintenance should not be very costly, even if repainting with Colas is required every year or two. A house with two rooms, each fourteen feet square, built on this method should cost about £20 to £25. It should be much less dangerous

from the point of view of plague than the present wattle and daub hut with a thatched roof, and it should be reasonably permanent. It is naturally capable of adaptation to family needs, and departmental plans exist for houses of from two to six rooms. It may be pointed out, however, that even £20 is a large sum for an African to spend at one time, and if this improved type of an African house is to be adopted on a large scale, some system whereby the capital sum can be borrowed and paid back with interest over a number of years, must be devised.

9. *Education*.—One of the most important events of the year has been the visit of the Commission appointed by the Secretary of State for the Colonies to advise on higher education in East Africa. Its report gives approval to the vocational classes which constitute the course for a medical diploma, but stresses the long-recognised fact that the basic education of the African recruit to the medical course is very deficient, and that his knowledge of the preliminary sciences is not of as high a standard as it should be. This criticism was endorsed by Professor W. Jameson, Dean of the London School of Hygiene and Tropical Medicine, when he visited the Protectorate at the end of the year, and the reports of the external examiners in chemistry, physics and biology in 1937—the first time external examiners have been appointed in these subjects—are even more emphatic on this point. (See page 55).

10. New laboratories for the teaching of biology, chemistry and physics are being constructed at the old normal school at Makerere College, and should be completed before the 1938 session commences in January. This should enable the standard of these courses to be raised considerably, for one of the main causes of their unsatisfactory character has been the absence of adequate laboratory facilities for practical training.

11. When the Higher College is constituted, the present medical course will become one of the vocational courses which will ultimately develop into Faculties when the College acquires university status. Under the proposed reorganisation of the College, medical students will live in hostels at Makerere, and will be the gainers by the broadening of their outlook through mixing with men and women training for other vocations. Additional facilities will thus be available for them to study their work in relation to that of other departments and to the general background of African needs.

12. Improvement of the medical course, its extension by a further year of study, and the enlargement of classes have resulted in the present medical school building becoming too small for the work which has to be done in it, and sketch plans have been produced for erecting a new institution in the vicinity of the present school. This will have ample accommodation for the anatomy, physiology and pathology classes as well as an assembly hall and two or three large general lecture rooms, staff and students' common rooms, a refectory, a library and a pathological museum.

13. The Joint East African Examining Board in Medicine has now produced the syllabus for its Diploma embodying the criticisms made on the draft presented to the Board last year. No one has yet obtained the Diploma as owing to the extension of the clinical period from two to three years, the first final examination under the Board's regulations will not be held till the end of 1938.

14. A new experiment in teaching was arranged at the close of the year. The confidence of the African in Mulago Hospital has increased to such an extent that the surgical specialist has his time so taken up with operative work that he finds it difficult to give sufficient clinical instruction on surgical cases to students. One of the more brilliant African medical assistants who qualified in 1936 and has just finished his year of post-graduate work, has therefore been selected as assistant to the surgical specialist to conduct certain of the tutorial classes in clinical surgery. He will commence his duties in the 1938 session, and as he will be looking at his subject with an African mind and will have an appreciation of the difficulties of African students, it is hoped that the experiment will be successful, in which case it will indicate the wisdom of similar appointments in other subjects, even though this may mean some temporary postponement of certain schemes of medical development in districts which are dependent on the provision of more African medical officers.

15. The training of African sanitary inspectors has progressed satisfactorily, and arrangements have been concluded whereby the final examination of the first batch of students which takes place in November, 1938, will be held under the auspices of the Royal Sanitary Institute, London, which will issue to successful candidates a certificate of qualification as a sanitary inspector in East Africa. An Examining Board will be appointed representing all East African territories, and this will be responsible for selecting local examiners. Papers will be marked locally and will then be sent to London for final approval.

16. The scheme inaugurated in 1936 for the training of African nurses (female) at Namirembe hospital has proved its value. As originally framed, it envisaged the holding of the Government examination in English, but on representations from the Medical Officer in charge of Namirembe hospital, permission was granted for examinations to be conducted in Luganda until the end of 1937, after which they would only be held in English. A proviso was attached to this concession, that successful candidates must pass an examination in lower standard Kiswahili, this because Luganda is not a compulsory language for European Nursing Sisters while Kiswahili is. So far about 16 girls have passed their examinations; but only two have entered Government service, as the others have taken a twelve-months' course to qualify themselves as midwives. Meanwhile other girls have been in training at Mulago Hospital, and some of these have now passed the same examination as the Namirembe nurses. It has therefore proved possible to staff all the female wards at Mulago with African female nurses, and as more girls qualify, it is hoped to do the same at all district hospitals.

17. It is interesting to note that, according to information vouchsafed by a missionary, the fathers in one district now demand that daughters for whose education they have paid, should train as nurses or midwives and earn some money before marrying. As such training is an education for the future wife and mother, this is a tendency which should be encouraged.

18. The question of giving certain of these trained girls further instruction in rural preventive health work and then using them as district nurses has been discussed in an earlier paragraph.

19. Recruits for training as male nursing orderlies have been very difficult to obtain this year, as the work does not really appeal to Africans who dislike night duty intensely and are only attracted to the service by the pay offered. Now that financial conditions in the Protectorate are better, posts at least as lucrative as that of a nursing orderly are open to boys leaving school, and it is small wonder they prefer those occupations which give regular hours of duty leaving the evening free for pleasure.

20. *Communicable and Infectious Diseases.*—The year has been one in which there has been a general decrease in the incidence of the major communicable and infectious diseases other than malaria and blackwater fever. No smallpox has been recorded; there has been a marked fall in the number of cases of trypanosomiasis discovered in the West Nile district, a result attributable to the intensive medical inspections carried out there; plague has fallen to a little over half the cases reported in 1936.

21. Although *Smallpox* has not occurred the vaccination campaign has been continued, and it is probable that over 75 per cent. of the total population is protected. Effort is directed to maintaining immunity by vaccinating all children at schools which are inspected by medical officers.

22. *Trypanosomiasis*, though its incidence has declined, still remains a major problem in the West Nile district. The area, however, which is now most affected is not the same as last year, indeed the Koich valley which in 1936 was a serious source of worry, has been largely depopulated owing to the gradual voluntary movement of people southward. This has introduced a new difficulty because, around the large clearings made on the Koich river for the protection of those crossing it, there is at the present time so small a number of inhabitants as to be insufficient to maintain the clearings, and it seems probable that some concentration of the population will be necessary to protect it from the tsetse fly. Again, the movement of people into new areas has increased the incidence of trypanosomiasis in these parts, either from infections acquired on the Koich river but undetected until arrival in the new area, or from infections acquired on the rivers in the newly-settled country. A system of "rod" clearings, that is clearings 10 to 20 yards wide along the banks of a stream, has been put under trial with the idea, not of eliminating the fly entirely but of reducing its density to limits within which the risk of infection of people in contact with it becomes very small. It is perhaps early yet to pronounce an opinion of the effectiveness of this measure, but results to date do not suggest that it has done much to reduce infection.

Hand-catching by the Kenya method has not yet been tried. This has been partly due to the trial of "rod" clearings, but mainly to the fact that hand-catching pre-supposes the cutting-up of the bush along a river into blocks separated by large clearings which are expensive to make and maintain. Plans to try this means of control were made for 1937, but unfortunately the only suitable clearings were on the Koich river, and with the migration of the inhabitants from the district it became impossible to maintain them, apart from the fact that removal of fly from the bush by hand-catching, a lengthy process, was of problematical benefit when there was so small a population at risk in the neighbourhood. Furthermore as laboratory experience

places the life of an infected fly at six months, if there are no people to infect the fly, the latter should become clear of infection in a year.

The pass system allowing natives to travel between Uganda and the Sudan along certain defined routes was introduced this year, and has so far proved a success, inasmuch as it has converted an illicit movement of people into a controlled one, for everyone proceeding along the recognised routes is examined for trypanosomiasis at a gland post before he is given a pass, and is checked again on crossing the border. The freedom from molestation of those in possession of a pass is a great incentive for all would-be travellers to follow the approved routes.

Resettlement of the shores of Lake Victoria under the conditions laid down in the 1936 report is progressing slowly. It will be long before this area, free from infected but not from non-infected fly, will become safe from chance infection introduced by some traveller from sleeping sickness areas in other parts of Uganda or Tanganyika. Hence control of labour imported from such areas and the maintenance of the pass system over the Tanganyika-Uganda border mentioned in previous reports, must be continued.

A new problem connected with trypanosomiasis control has arisen in the Katunguru area of Toro district owing to the great expansion of a prosperous fishing industry on the Kazinga Channel between Lake Edward and Lake George. Measures are in hand to limit the fishing to a safe area, and to control it by registration of all fishing canoes and by the restriction of their numbers to a maximum which can be supervised.

23. It seems probable that *Plague* is undergoing its periodic fall in incidence and that the decrease in the number of cases this year is attributable to this and not to any real improvement in its control, for as has again and again been pointed out in these reports, that will only become effective when the African builds for himself a house which contains no real harbourage for rats, and adopts habits of food storage and refuse disposal which deprive the rodent of any food. The elimination of plague in the absence of some, at present unforeseen, epoch-making discovery is not therefore likely to be effected for many years. Meanwhile although the cyano-gassing of infected huts in the vicinity of the focus of infection is a routine measure, greater recourse has been had to the old method of de-thatching the infected hut, because the experience of the past year has shown that the African has now no marked objection to it, while in the ordinary course a greatly improved and more sanitary house results when the thatch is replaced, as dilapidations are repaired.

24. The team from the Rockefeller Foundation to study *Yellow Fever* in Uganda and the surrounding territories was completed by the arrival of Dr. Paul early in the year. After a rapid survey of the country, efforts to find the virus were concentrated in succession on certain areas where immunity tests showed a high protection rate, or where suspicious cases of jaundice were found. Experience in South America suggested that a promising place to look for the virus would be where a new road is under construction to Bwamba through the forest country in the foot-hills of Ruwenzori, but up to the close of the year the search was unsuccessful. From some patients here, however, certain infective agents were isolated which produced encephalitis in inoculated mice though the controls remained healthy. Until further investigation has been

made no pronouncement as to whether these agents are viruses or not, can be made.

25. Reference was made in the 1936 Report to *Labour Conditions* in Uganda. A Committee has been appointed to investigate these, and until it has reported the new Masters and Servants Rules remain in draft form. It is pleasant to record that more ginnery employers are putting up permanent housing for their labourers, but unfortunately with quite inadequate accommodation for the total number of Africans employed. The manager usually explains that the permanent lines are intended to house what he asserts to be the very small number of employees who are strangers to the district, the rest of the labour all living in their homes. The elastic character of the definition of "home" in the managers' minds is shown by the small villages of grass-roofed, grass-sided, windowless huts clustering on the boundaries of the ginnery plot. As a rule most of the occupants of these villages confess to being strangers to the district when cross-examined.

The slight difference between wages offered with rations and those offered without is still marked, although one manager, after giving the figures of Shs. 10 and Shs. 12 respectively, naively remarked that the firm preferred the employee to accept the rate without rations as it cost 20 cents a day to feed a labourer. There is therefore some urgency that minimum standard conditions of employment should be laid down to prevent exploitation of the labourers. The difficulty with regard to the distinction between employees whose homes are within easy reach of the place of employment and other workers could possibly be surmounted by a formula classing as locally-engaged labourers those who pay poll-tax in the gombolola in which the factory or other place of work is situated.

26. Considerable progress has been made with the laying of sewers in Kampala and the construction of the sewage works, and a number of houses have been connected up to the sewers already, although the disposal works have not yet been completed. The scheme provides for settlement of the sewage in tanks, the passage of the effluent through filters and its final discharge into a channel through the swamp leading to Lake Victoria.

A number of houses in Entebbe have been provided with a septic tank installation though this cannot be put into operation until the piped water supply from the lake is completed. Similarly the new Government houses in Mbale have septic tanks installations now that a gravity water supply has been constructed. It is hoped that all new houses built by Government in stations where a water supply is available will have water-borne sewage systems.

27. Tororo hospital, which will provide out-patient and in-patient accommodation for Asians and Africans, is approaching completion, some delay having been caused by difficulties with the septic tank sewage disposal system. Jinja hospital has had two new African wards and an Asian maternity ward and out-patient block, as well as a modernized laundry, new kitchen, and African staff quarters added, and the new units should be ready for occupation as soon as the septic tank installation is constructed. The hospital in temporary materials at Kitgum, which had been threatening to collapse for the past two years, has now become

uninhabitable. Temporary arrangements have been made for the housing of patients until the erection of the new unit which is in the nature of an expanded dispensary unit rather than a full-sized district hospital. Small improvements have been made in other hospitals, but there are still considerable arrears of rehabilitation work which will have to be overtaken before the main Protectorate hospital system can be considered reasonably modern in design and equipment, and before the African staff can be decently housed. Some of the temporary buildings which are in use as staff quarters can only be described as slum dwellings.

28. *Public Health Administration*.—The commencement of the water-borne sewage schemes for Kampala and other places made it imperative that the draft Drainage Rules which originally were included in the draft Building Rules under the Public Health Ordinance should be enacted as early as possible. They were therefore brought in as a separate set of Rules. Examination of the Public Health Ordinance, however, revealed difficulties in enacting them under it in the form in which they were originally drafted, and it became necessary therefore to pass an amending Ordinance which besides including powers to make rules relating to drainage, and special provisions relating to sewerage and drainage, took advantage of the opportunity to introduce some amendments simplifying the service of notices and making provision for appeals, and for recovery of expenses where work has to be done by a health authority on any premises. Rules were also made under the Public Health Ordinance, and the Public Health (Amendment) Ordinance, 1937, to deal with the question of financial assistance for Kampala drainage. The draft Building Rules made under the Public Health Ordinance, are now in their final stage and should be promulgated early next year. Draft rules have been drawn up relating to school buildings and to the control of plague but have not yet been issued. A draft town-planning ordinance has also been under discussion; its final form has not yet been agreed on by the departments concerned.

The difficulties associated with the development of trading centres in Buganda Province referred to in the 1936 report still remain unsolved. The Rules then mentioned have not yet been enacted, and until this is done, no real improvement of conditions can be effected. Fortunately existing leases are only of one year's duration so that no vested interests will be involved when action is taken to control the size of plots.

29. The present Lunacy Ordinance is very unsatisfactory and quite unsuited to modern ideas of the control of lunatics. A new Mental Diseases Ordinance has been drafted to replace it, and this provides adequate safeguards both for the public and the mental patient himself as well as ensuring proper control of mental hospitals. A new draft Drugs and Poisons Ordinance is under consideration by the pharmaceutical chemists in business in Uganda. It is based on an Ordinance recently enacted in the Tanganyika Territory and will bring the Protectorate law in regard to poisons into line with the new poisons legislation of the United Kingdom. It will moreover enable better control to be exercised over the illicit use of salvarsan substitutes by unqualified persons for the treatment of syphilis and yaws, a practice which is very profitable to the unscrupulous, since the unsophisticated African has a blind belief in the efficacy of salvarsan injections as a cure for all ills.

SECTION II.—PUBLIC HEALTH.

30. *Establishment*.—The establishment of European Medical Officers has been increased from 31 to 32, and of European Sanitary Inspectors from 16 to 17. A new post for an X—ray Operator was created. One Asian Sanitary Inspector who retired, has not been replaced.

31. *Returns*.—The following table compares the attendances at hospitals and dispensaries for the last five years.

	1933	1934	1935	1936	1937
New cases (excluding examinations) ..	743,719	831,240	906,486	973,478	932,111
In-patients	30,185	33,200	33,805	31,077	33,443
In-patients days ..	493,481	462,802	464,673	431,601	465,315
Total attendances ..	3,045,074	3,209,315	3,139,985	3,094,829	2,895,933
Surgical operations ..	4,908	4,796	4,443	5,433	6,692

Cases by Races:—

	1936		1937	
	New cases.	Admissions.	New cases.	Admissions.
European	3,076	517	3,038	538
Asian	7,566	1,345	9,019	1,655
African	962,836	29,215	920,054	31,250

32. *Dispensaries*.—There were 97 dispensaries and dressing posts in use. Bundibugyo dispensary in Toro district was completed in permanent materials. New dispensaries, in temporary buildings, were opened at Buwama in Mengo district, and Sembabule in Masaka district. Dressing posts were started at Kawoko and Kabula in the West Nile district.

33. The number of cases seen at station hospitals and dispensaries was as follows:—

	1936		1937	
	New cases including examinations.	Re-attendances.	New cases including examinations.	Re-attendances.
Hospitals	442,573	627,535	499,934	533,727
Dispensaries	643,997	1,380,724	588,727	1,152,941
TOTAL	1,086,570	2,008,259	1,088,631	1,686,668
Total attendances ..	3,094,829		2,775,299	

The procedure in recording disease returns adopted in 1936 has been continued. Only the cases of each disease treated in station hospitals and at dispensaries in charge of a Senior African Medical Assistant have been included in Tables V and VI. The nomenclature recommended in "Devitalized Vital Statistics in the Tropics" (P. Granville Edge) has been adopted in compiling these tables.

In addition 26 persons, who had been previously treated, returned for a further course in 1937. 8 deaths were reported in the West Nile district, 4 in Madi, and 1 each in Chua and Gulu.

WEST NILE SLEEPING SICKNESS AREA.

There were 700 cases reported. This is a large decrease on the figures for 1936, and this decrease is of greater importance since, owing to the intensive and frequent inspections now carried out, all infected persons are likely to be detected.

GULU, CHUA, AND MADI AREAS.

In Madi, the focus discovered at Obongi in 1936 appears to be under control. Seven cases occurred compared with 24 cases in 1936. There were 9 cases in Chua and 2 in Gulu.

LAKE EDWARD-GEORGE AREA.

48. Four cases were reported compared with 27 in 1936. The position is regarded as satisfactory.

49. *Plague*.—515 cases with 478 deaths were reported compared with 980 with 927 deaths in 1936. These occurred in Mengo district of Buganda Province, in the Busoga, Budama, Bugwere, and Teso districts of the Eastern Province, and in the Lango district in the Northern Province; and one case was reported from Ankole district in the Western Province. The mortality rate in Busoga continues to rise, being 89.62 per cent. compared with 86 per cent. in 1936 and 75 per cent. in 1935, but is still considerably lower than that for the remainder of the Protectorate which is 97.96 per cent.

Cases were distributed as follows:—

				1936		1937	
				Cases.	Deaths.	Cases.	Deaths.
BUGANDA PROVINCE:—							
Mengo .. .. .	..	..	..	275	269	112	108
EASTERN PROVINCE:—							
Busoga .. .. .	..	..	..	300	259	318	285
Central District ..	..	..	..	257	257	6	6
Budama .. .. .	..	..	..	12	11	8	8
Teso .. .. .	..	..	..	68	68	39	39
NORTHERN PROVINCE:—							
Lango .. .. .	..	..	..	68	65	31	31
WESTERN PROVINCE—							
Ankole .. .. .	..	..	..	..	..	1	1

In the last 20 years there have been 35,467 deaths from plague as follows:—

Year.	Deaths.	Year.	Deaths.	Year.	Deaths.	Year.	Deaths.
1918 ..	2,493	1923 ..	914	1928 ..	1,174	1933 ..	833
1919 ..	1,022	1924 ..	810	1929 ..	5,118	1934 ..	937
1920 ..	1,732	1925 ..	869	1930 ..	2,370	1935 ..	1,871
1921 ..	5,871	1926 ..	1,589	1931 ..	2,299	1936 ..	929
1922 ..	1,305	1927 ..	1,863	1932 ..	990	1937 ..	478

50. *Relapsing Fever*.—453 cases, of which 375 were microscopically diagnosed, were reported. 367 were treated in hospital with 25 deaths. The majority of cases occurred in the Western Province, and the Masaka district of the Buganda Province, and were distributed thus:—

	1934	1935	1936	1937
Fort Portal and dispensaries	18	40	51	42
Kabale and dispensaries	45	65	40	29
Mbarara and dispensaries	958	353	238	222
Masaka and dispensaries	87	131	108	109

Cases were also treated at Mulago (22), Mubende (21), Entebbe (2), Jinja (2), Hoima (1), Butiaba (1) and Serere (1). 78 cases reported from dispensaries were not confirmed microscopically.

51. *Typhus*.—Five cases were reported, of which only one came from Kigezi. The use of Carnie's disinfector is universal and has apparently been successful in controlling this disease. It must again be emphasized that, if typhus is to be kept to insignificant proportions, it is essential that the use of this disinfector shall be continued since there are foci of infection in areas outside the Protectorate border in the neighbourhood of Kigezi.

52. *Malaria*.—There was a slight increase in the number of cases, 72,238, with 134 deaths in hospital, being treated. The figures reported yearly have continued to increase for some years.

	Cases.	Deaths in Hospital.
1933	48,702	57
1934	60,229	107
1935	62,581	116
1936	71,407	142
1937	72,238	134

31,314 cases attended station hospitals and 40,924 dispensaries. The following table compares the incidence of malaria in stations where it is particularly prevalent:—

	1935		1936		1937	
	Diagnosed by microscope.	Total cases reported.	Diagnosed by microscope.	Total cases reported.	Diagnosed by microscope.	Total cases reported.
Kampala ..	1,802	5,715	1,805	5,909	1,309	5,566
Entebbe ..	461	1,358	563	1,540	338	1,555
Masaka ..	1,060	2,076	1,228	2,384	1,332	2,791
Mbarara ..	1,057	2,703	1,576	4,740	947	2,394
Jinja	940	1,883	2,323	4,483	1,232	2,283
Tororo	930	1,479	1,152	2,070	501	1,811
Soroti	505	1,445	500	1,827	616	2,638
Lira	549	993	436	907	469	1,067
Gulu	429	861	351	842	229	529
Masindi ..	445	869	303	950	572	880
Arua	758	1,188	603	1,053	728	1,154

It is significant that although the reported cases from these stations has risen, there has been a fall in the number diagnosed microscopically. It is probable that many cases of pyrexia of unknown origin swell the total.

In all stations 48·97 per cent. of cases were microscopically diagnosed.

The distribution by Provinces for the last three years has been as follows:—

		Buganda.		Eastern Province.		Western Province.		Northern Province.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1935	..	19,200	46	24,256	52	9,900	6	9,225	12
1936	..	21,982	72	27,980	40	11,319	13	10,126	17
1937	..	21,951	74	29,053	28	12,127	18	9,925	14

The number of admissions to hospitals was 4,184, compared with 4,587 in 1936, and the deaths fell from 142 to 134. A large proportion of the deaths in Masaka and Mulago occurred in itinerant Banyaruanda natives. The following table gives the death rates for the past 5 years:—

			Number of in-patients.	Number of deaths.	Death-rate per cent.
1933	..	..	3,199	57	1·78
1934	..	..	3,986	106	2·67
1935	..	..	3,910	116	2·96
1936	..	..	4,587	142	3·09
1937	..	..	4,184	134	3·20

The following table shews the number of cases of malaria reported, compared with all diseases in each Province, and the number of cases per thousand of the population:—

				1934	1935	1936	1937
BUGANDA PROVINCE:—							
Cases of malaria	..	..	..	18,756	19,200	21,982	21,133
Rate per 1,000 cases all diseases	..	..	..	103	99	105	98
Rate per 1,000 population	..	..	..	21	21	24	23
*EASTERN PROVINCE:—							
Cases of malaria	..	..	..	22,614	24,108	27,980	28,947
Rate per 1,000 cases all diseases	..	..	..	80	78	83	93
Rate per 1,000 population	..	..	..	19	20	24	24
WESTERN PROVINCE:—							
Cases of malaria	..	..	..	9,693	9,900	11,319	12,127
Rate per 1,000 cases all diseases	..	..	..	70	66	75	80
Rate per 1,000 population	..	..	..	13	13	15	16
NORTHERN PROVINCE:—							
Cases of malaria	..	..	..	9,013	9,225	10,126	9,925
Rate per 1,000 cases all diseases	..	..	..	39	37	42	40
Rate per 1,000 population	..	..	..	11	11	12	12
*TOTALS FOR PROTECTORATE:—							
Cases of malaria	..	..	..	60,076	62,433	71,407	72,238
Rate per 1,000 cases all diseases	..	..	..	72	69	72	77
Rate per 1,000 population	..	..	..	16·8	17·4	19·8	20·0

* The population of Karamoja has been excluded from these figures.

53. *Blackwater Fever*.—170 cases with 43 deaths were reported. Of these 86 with 23 deaths were treated by Government medical officers, and 84 with 20 deaths by private practitioners. The cases by race and sex were:—

	Males.		Females.	
	Cases.	Deaths.	Cases.	Deaths.
Europeans	13	4	1	..
Asians	120	34	30	4
Africans	5	..	1	1
TOTAL	138	38	32	5

In 1936, out of 159 cases, 8 were European, 141 Asian and 10 African.

The numbers of cases, deaths and case mortality for the last 20 years (Africans excluded) has been:—

Year.	Cases.	Deaths.	Case Mortality.	Year.	Cases.	Deaths.	Case Mortality.
1918 ..	40	7	17·5	1928 ..	166	40	24·1
1919 ..	83	13	21·7	1929 ..	109	16	14·6
1920 ..	56	7	12·5	1930 ..	140	35	25·0
1921 ..	62	15	24·1	1931 ..	155	43	27·7
1922 ..	83	14	16·8	1932 ..	120	39	32·5
1923 ..	71	17	24·0	1933 ..	143	41	28·6
1924 ..	70	23	32·8	1934 ..	135	36	26·6
1925 ..	81	22	27·1	1935 ..	152	41	27·1
1926 ..	170	50	29·0	1936 ..	149	28	18·8
1927 ..	106	28	26·4	1937 ..	164	42	25·6

The number of cases reported is the highest since 1928. The death rate has increased to 25·6 per cent. but with the exception of 1936, this is lower than that in any of the preceding six years. The European population during 1937 was approximately 2,100, and the Asian population 15,700. The incidence of blackwater amongst the European population was 6·6 per thousand, and amongst the Asian 10·0. The rate amongst Europeans has been declining recently, as in the years 1923–1927 the figure for Europeans was 8·92 per thousand. The rate amongst the Asian population has shown little variation. It appears that these differences can be attributed to the better standard of housing and nutrition which usually exists amongst Europeans, together with the probability that Europeans more frequently than Asians complete a curative course of quinine or atebrin after an attack of malaria.

The incidence by provinces and stations for the last six years has been as follows:—

			1932	1933	1934	1935	1936		1937	
							Cases.	Deaths.	Cases.	Deaths.
BUGANDA PROVINCE:—										
Mengo District ..	..	..	41	52	46	46	43	11	53	14
Masaka District ..	..	..	3	4	..	8	12	1	5	1
Mubende District	..	..	..	..	1	..	..	..	1	1
TOTAL			44	56	47	54	55	12	59	16

				1932	1933	1934	1935	1936		1937		
								Cases.	Deaths.	Cases.	Deaths.	
EASTERN PROVINCE:—												
Busoga district	..			29	28	37	29	29	4	38	8	
Budama district	..			7	15	4	16	13	4	6	2	
Central district	..			10	14	26	20	25	1	19	9	
Teso district	..	..		18	13	8	11	11	1	18	3
TOTAL	64	70	75	76	78	10	81	22
NORTHERN PROVINCE:—												
West Nile district	..			1	1	..	2	1	..	3	2	
Bunyoro district	..			3	4	3	7	3	..	6	1	
Acholi district	..	..		5	2	4	4	5	3	4	1
Lango district	..	..		5	8	4	9	5	2	9	..
TOTAL	14	15	11	22	14	5	22	4
WESTERN PROVINCE:—												
Ankole district	..	..		1	..	..	..	1	..	2	..
Kigezi district	..	..		..	..	2	..	1	1	..	..
Toro district	..	..		..	2	..	..	..	..	..	..
TOTAL	1	2	2	..	2	1	2	..

The European deaths were at Jinja (2), and Kampala (2).

The following table gives the incidence in the combined European and Asian populations of each province:—

		1933		1934		1935		1936		1937	
		Population European and Asian.	Incidence per 1,000 population.	Population European and Asian.	Incidence per 1,000 population.	Population European and Asian.	Incidence per 1,000 population.	Population European and Asian.	Incidence per 1,000 population.	Population European and Asian.	Incidence per 1,000 population.
Buganda											
Province	..	7,746	7·6	7,451	6·3	8,142	6·6	8,199	6·7	8,633	6·8
Eastern											
Province	..	5,698	12·3	6,175	12·1	6,255	12·1	5,900	13·0	6,292	12·8
Northern											
Province	..	1,623	9·2	1,555	7·0	1,574	14·6	1,658	8·4	1,783	12·3
Western											
Province	..	805	2·5	877	2·2	1,050	..	1,107	1·8	1,194	1·7

The case incidence in age groups was:—

Age.			Cases.	Deaths.	Percentage Mortality.
0—5	..	..	11	4	36·36
6—10	..	..	18	2	11·11
11—15	..	..	6	2	33·33
16—20	..	..	20	3	15·00
21—30	..	..	61	14	22·95
31—40	..	..	32	12	37·50
41—50	..	..	10	2	20·00
55	..	..	1	1	100·00
75	..	..	2	..	..
Unknown	..	..	3	2	66·66

In 7 cases, one of which died, it was the second attack, and in four cases, with no deaths, the third.

CASE INCIDENCE, MORTALITY AND FATALITY RATES.

	1928-1932	1933	1934	1935	1936	1937
YEARLY AVERAGE POPULATION—						
European	1,990	1,811	1,854	1,959	1,994	2,099
Asian	13,337	14,061	14,204	15,086	14,860	15,713
TOTAL ..	15,327	15,872	16,058	17,045	16,854	17,812
CASES OF BLACKWATER FEVER—						
European	70	7	12	13	8	14
Asian	612	136	123	139	141	150
TOTAL ..	682	143	135	152	149	164
CASE INCIDENCE PER 1,000 POPULATION—						
European	7.04	3.86	6.47	6.63	4.01	6.6
Asian	9.18	9.67	8.65	9.21	9.49	10.0
TOTAL ..	8.90	9.01	8.40	8.91	8.84	9.02
MORTALITY RATE PER 1,000 POPULATION—						
European	1.41	0.55	2.15	..	1.00	1.90
Asian	2.38	2.84	2.25	2.71	1.75	2.41
TOTAL ..	2.26	2.58	2.24	2.40	1.66	2.35
PERCENTAGE CASE FATALITY RATE—						
European	20.00	14.28	33.33	..	25.00	28.57
Asian	25.98	29.41	26.01	29.49	18.44	25.33
TOTAL ..	25.37	28.67	26.66	26.97	18.82	25.60

Amongst Africans, there were 6 cases of blackwater fever. One of these occurred in a female who died. The cases were as follows:—

Place.	Tribe.	Age.	Result.
Kampala	Kikuyu	Adult	Cured.
Kampala	Munyankole	Adult	Cured.
Luzira Prison	Munyankole	Adult	Cured.
Kampala	Munyankole (F.)	Adult	Died.
Lira	Lango	30	Cured.
Mubende	Mutoro	26	Cured.

Only one case of the six recorded contracted the disease in his tribal area. The Munyankole who contracted it in prison had six attacks during 1936–1937. After his last attack he was transferred from Luzira to his tribal area.

(b) INFECTIOUS DISEASES.

54. *Epidemic Cerebro-Spinal Fever.*—There were 310 cases with 118 deaths compared with 360 with 130 deaths in 1936. In Ankole and Kigezi the disease remained endemic; 5 cases occurred in Ankole and 25 in Kigezi. Other districts where cases occurred were: Busoga 72,

Masaka 63, Toro 56, Teso 45, and Mengo 33. Sporadic cases occurred in other districts, 2 in the West Nile district, and one each in Bugwere, Lango, Bunyoro and Gulu districts. 217 cases, 115 of which died, were treated in hospital.

55. *Dysentery*.—2,023 cases were reported. There were 652 cases of amoebic dysentery, 281 bacillary and 1,090 unclassified.

56. *Influenza*.—20,094 cases were reported, 8,410 from hospitals and 11,684 from dispensaries. Epidemics of a mild type were reported from Gulu district in April and May, and from the West Nile and Lango districts at the end of the year. It is probable that a number of cases of pyrexia of unknown origin were reported as influenza.

57. *Small-pox*.—No small-pox was notified.

58. *Syphilis and Yaws*.—There was an increase in the cases of syphilis and yaws treated.

	1932	1933	1934	1935	1936	1937
Syphilis ..	68,432	72,218	74,141	72,361	63,695	67,621
Yaws ..	43,773	49,546	57,056	64,715	62,240	65,358
Both diseases ..	112,205	121,764	131,197	137,076	125,935	132,979

59. The distribution between provinces was:—

				Syphilis.	Yaws.
BUGANDA PROVINCE—					
Hospital cases	..	..		11,981	992
Dispensary cases	..	..		19,230	2,062
TOTAL	..	..		31,211	3,054
EASTERN PROVINCE—					
Hospital cases	..	..		10,971	3,918
Dispensary cases	..	..		11,718	6,780
TOTAL	..	..		22,689	10,698
NORTHERN PROVINCE—					
Hospital cases	..	..		1,821	12,701
Dispensary cases	..	..		1,666	11,245
TOTAL	..	..		3,487	23,946
WESTERN PROVINCE—					
Hospital cases	..	..		2,189	4,673
Dispensary cases	..	..		8,045	22,987
TOTAL	..	..		10,234	27,660

60. *Gonorrhoea*.—The number of cases of gonorrhoea, 16,236, again shews an increase. The incidence for the past five years is:—

1933, 10,702. 1934, 9,690. 1935, 11,849. 1936, 14,101. 1937, 16,236.

The results of treatment remain unsatisfactory owing to irregular attendance of the patients.

61. *Leprosy*.—At Government hospitals and dispensaries 1,067 lepers attended for treatment, compared with 1,013 in 1936.

REPORTS ON THE MISSION LEPER COLONIES.

62. *Buluba Leper Settlement, Busoga*.—This settlement, under the supervision of the Franciscan Sisters, has continued on the lines referred to in the Report for 1936. All the land originally given for leper settlement is now occupied. The new area which has been allocated on the north of the settlement, needs preliminary clearing before being allotted to individual lepers for cultivation. It is hoped that this will be done in 1938. A dormitory, kitchen and storeroom for boys, and a bathroom, kitchen and store for women, were completed. A cubicle building was also erected for new cases who have not yet provided accommodation for themselves. A block containing a maternity ward and sick wards will shortly be finished. There has been little increase in the number of inmates, due to the difficulty of clearing the new area for allotments and to the decision taken not to admit more cases until the cubicle ward was completed. With few exceptions, inmates are making progress, though most of those who joined the settlement when it was first opened still remain. Four have been allowed to return home and come when required for examination, while two more attend weekly as out-patients. At the end of the year there were resident 58 males, 30 females, and 23 children, as well as 5 infants who shewed no signs, 4 non-leper children and two non-leper women.

63. *Nyenga Leper Colony, Mengo*.—This colony is under the management of the Franciscan Sisters. At the end of the year there were 208 lepers including 35 children, 45 new cases having been admitted and one discharged under observation. There were 9 deaths and two births. The newly born babies were at once transferred to Nsube Orphanage. Improvement has been shewn by all the children and by many of the adults. A dormitory, bathroom and latrine for men, together with a kitchen for women, have been erected. Married lepers' quarters consisting of two-roomed houses with kitchens, latrines, bathrooms and stores, have also been completed. All these buildings are of burnt brick with corrugated iron roofs.

64. *Bunyoni Leper Colony, Kigezi*.—The colony is maintained by the Church Missionary Society. The number resident was 547, a reduction on the figure for 1936. The home for untainted children continues to give encouraging results, its occupants having increased from 19 to 36. Of this number one was removed showing early signs of leprosy, whilst there was one death from enteritis. The home has been enlarged to accommodate the larger number of children, and a house has been built for the untainted staff who attend them. Twelve permanent houses for lepers, consisting of two rooms and an outside kitchen, were also completed.

Late in the year an epidemic of measles occurred in the island. Most of the cases were treated in hospital, but in spite of all care there were four deaths out of 89 cases.

At a survey held in March it was found that:—

- 8 per cent of cases were arrested.
- 14 per cent of cases were improved.
- 35 per cent of cases were stationary.
- 43 per cent of cases were worse.

This is slightly better than the figures obtained at the March survey, 1936, but the medical staff are convinced that little improvement is to be hoped for from drug treatment alone. Better diet and hygiene are essential.

Three Scout patrols have been formed, one of untainted boys and the other two of leper children.

65. *Teso Settlements*.—These settlements are under the supervision of the Church Missionary Society. The number of children in residence at the *Kumi Children's Home* was 354. Of these, 106 responded well to treatment, 98 showed slight improvement, while 28 became worse. Of the remainder, 14 had to stop treatment, 10 left the home, 47 were transferred to the Ongino Colony, and 6 died. 28 cases were arrested without disablement, and 5 were discharged. There are also 25 healthy children living in a separate dormitory, and a further 31 living with their parents.

A pleasing development has been the formation of the 2nd Teso Company of Girl Guides. 29 girls have already been enrolled, and are shewing great interest, endeavouring to rival the work done by the Scout troops who have had the benefit of an earlier start.

The numbers resident in the *Ongino Leper Colony* were 248 males and 163 females. Of these 143 were much improved, 112 slightly improved, 48 were stationary, and 55 became worse. 36 left the settlement before the disease was arrested, and 17 died. An average of 87 out-patients attended weekly for injections. The lack of a good water supply still handicaps the colony, but it is hoped that this drawback will be removed shortly.

66. *Typhoid Fever*.—109 cases, 9 of which were due to para-typhoid bacilli, were treated by Government medical officers. There were 32 deaths in hospital. A small epidemic which broke out in the Kenya and Uganda Railways and Harbours lines in Kampala, was traced to a seepage water supply. A piped water system was made available and the epidemic ceased within fourteen days. 39 cases occurred in Africans in Kampala, and one in an Asian. The latter proved fatal. The number of cases reported in Kampala for the last ten years has been:—

1928	..	..	56	1933	..	..	42
1929	..	..	85	1934	..	..	54
1930	..	..	39	1935	..	..	30
1931	..	..	66	1936	..	..	46
1932	..	..	12	1937	..	..	40

The case mortality for the Protectorate during the same period has been:—

1928	..	..	18·9	1933	..	..	38·2
1929	..	..	16·4	1934	..	..	23·6
1930	..	..	18·6	1935	..	..	30·3
1931	..	..	20·0	1936	..	..	27·7
1932	..	..	18·1	1937	..	..	29·4

67. *Tuberculosis*.—520 cases of pulmonary and 93 of other forms of tuberculosis attended Government hospitals. Mulago hospital with 157 cases, and Masaka hospital with 89, again provided the largest

numbers of patients. 283 cases of pulmonary tuberculosis with 92 deaths and 57 cases of other tuberculous diseases with 20 deaths were admitted to hospital.

Investigational work was continued by Dr. Carmichael, Senior Veterinary Research Officer. 51 specimens of sputum from phthisis cases were examined with a view to isolation and typing of the tubercle bacillus. The vast majority of these specimens were from the Banyaruanda, Bakiga and Banyankole tribes. The causal organism in all cases was of the human type. Up to the end of 1937 over 250 specimens of sputum have been examined in all, with only 4 caused by the bovine type of bacillus. This incidence of bovine infection in cases of pulmonary tuberculosis in man is comparable with that met in Great Britain, and emphasises the importance of other than human strains in the epidemiology of tuberculosis in the African.

68. *Anthrax and Rabies*.—8 cases of anthrax were diagnosed in Kigezi, and 1 case in Masaka. No rabies was reported.

69. *Measles*.—866 cases were recorded by station hospitals compared with 246 in 1936. There were large epidemics in most districts, and the disease appears to have been severe. In Toro a large number of complications affecting the eyes were reported, and it is probable that these occurred in other districts also.

(c) HELMINTHIC DISEASES.

70. The number of cases of infection with intestinal parasites recorded in the returns includes only those patients whose symptoms are diagnosed as due to such parasites. Many other infections are discovered by the routine examination of stools of in-patients but are not separately reported, though given treatment when advisable.

71. *Ancylostomiasis*.—1,761 cases were recorded. The following results of examinations of stools were submitted by medical officers:—

Entebbe	..	..	..	50 per cent. contained ova.
Masaka	..	..	..	77 per cent. contained ova.
Mbale	..	..	..	30 per cent. contained ova.
Jinja	..	..	..	30 per cent. contained ova.
Hoima	..	..	..	54 per cent. contained ova.
Gulu	..	..	..	38 per cent. contained ova.
Arua	..	..	..	23 per cent. contained ova.

Although the condition appears to be wide-spread, as a rule medical officers report that it causes little disability.

72. *Taeniasis*.—2,034 cases were treated. The largest numbers were returned from Toro, Ankole, and Masaka, which are districts in which animal husbandry is an important industry, and in which there is a high percentage of infestation amongst the cattle.

73. *Ascariasis*.—861 cases were reported. Over half came from the Western Province. The worm frequently causes serious disability, which takes the form of anaemia, chest pains, and haemoptysis. It is thought that many cases of pneumonia in children are primarily due to this helminth.

74. *Dracontiasis*.—639 cases were recorded. The majority of these were reported from the Northern Province.

75. *Schistosomiasis*.—126 cases were reported.

76. *Filariasis*.—Although no cases were treated in hospital, it is said that *Onchocerca volvulus* is extremely prevalent in the vicinity of the Sezibwa river in Buganda. All persons from this area who complained of eye trouble, were examined but no choroiditis was seen. Skin lesions are the commonest manifestation, and they appear to be relieved by atebrin. This drug was tried on the empirical grounds that atebrin stains the skin. The infection is very common in the region around the headwaters of the Nile. A survey of one village a few years ago shewed that 14 per cent. of the population was infected, and there is reason to believe that the rate has risen rather than decreased. As *S. damnosum* is the intermediate host and no effective means of controlling the breeding of this insect has yet been devised, preventive measures are limited to the reduction of bush over as large an area as possible around habitations.

B Vital Statistics.

77. The vital statistics for the Protectorate are given in Tables A, B, and C. The population has been calculated from the census figures of 1931, by the addition of births and the subtraction of deaths in each subsequent year.

The following table gives the yearly increase of the provincial population per 1,000 persons:—

	1933	1934	1935	1936	1937
Buganda Province	1·7	3·1	3·4	4·4	4·6
Eastern Province	12·0	3·5	1·5	1·5	3·2
Western Province	11·0	8·6	6·3	12·4	9·6
Northern Province	15·0	8·2	14·2	12·4	10·4

Birth Rate and Death Rate.—Live births exceeded deaths by 23,334 and the population increased by 6·4 per thousand. The corresponding figures for 1936 were 24,591 and 6·6. Only one district, Busoga (1,830), shews an excess of deaths over live births. Mengo, Bugwere, and Teso, all of which had fewer live births than deaths in 1936 now show an increase of births over deaths of 118, 697 and 903 respectively.

Still-birth Rate.—The number of still-births reported was 3,631 compared with 3,932 in 1936. The figures are probably not accurate. The percentage rate of still-births to the total of live births and still-births ranges from 0·93 in Kigezi to 9·99 in Bunyoro. The rate for the Protectorate was 3·79.

Infant Mortality Rate.—This rate—155·67 per thousand live births—continues to fall. It still remains high in the West Nile (314·10), Chua (364·68) and Busoga (248·09). In Teso (56·38) the figure would not be unsatisfactory in European countries.

Maternal Mortality Rate.—This rate fell from 12·28 to 11·17. The rate for the West Nile district fell from 46·11 to 32·01. It is doubtful if the figures given are very reliable.

TABLE A.—RETURN SHOWING BIRTH, DEATH, STILL-BIRTH AND INFANTILE MORTALITY RATES FOR THE UGANDA PROTECTORATE FOR THE LAST SEVEN YEARS.

PROVINCE AND DISTRICT.	BIRTH RATE PER 1,000 POPULATION.							DEATH RATE PER 1,000 POPULATION.							STILL-BIRTH RATE PER 100 BIRTHS AND STILL-BIRTHS.							INFANTILE MORTALITY RATE PER 1,000 BIRTHS.							MATERNAL MORTALITY RATE PER 1,000 BIRTHS AND STILL-BIRTHS.						
	1931	1932	1933	1934	1935	1936	1937	1931	1932	1933	1934	1935	1936	1937	1931	1932	1933	1934	1935	1936	1937	1931	1932	1933	1934	1935	1936	1937	1931	1932	1933	1934	1935	1936	1937
BUGANDA:—																																			
* Mengo	15'85	16'61	17'05	17'49	19'74	19'83	19'71	22'24	22'15	22'44	19'34	21'61	20'56	19'37	5'05	5'34	4'52	3'10	4'22	3'21	3'09	148'71	107'54	124'80	93'29	83'98	91'73	89'96	14'27	13'32	15'71	11'79	12'27	15'42	9'93
* Entebbe	17'52	17'84	18'12	18'93	19'06	20'34	20'32	15'21	14'59	15'07	13'29	13'36	16'10	14'95	2'95	1'77	1'52	0'58	1'18	1'33	1'05	100'43	85'36	87'96	72'13	62'33	74'03	60'50	7'17	6'22	6'41	4'76	4'95	6'92	6'91
Masaka	27'97	25'20	29'79	29'92	28'84	33'30	32'27	18'44	17'42	16'64	16'78	16'38	17'62	17'89	3'57	5'39	3'07	4'04	4'48	6'09	4'48	97'41	89'54	96'10	83'03	76'96	76'73	61'16	7'66	5'15	6'90	6'53	5'94	6'95	7'97
Mubende	21'81	20'18	19'36	19'16	20'99	22'02	20'17	19'28	17'99	16'49	19'33	19'12	19'39	18'85	5'28	8'93	6'44	7'19	7'75	5'09	4'30	114'48	113'97	103'87	122'66	120'00	120'87	114'41	4'19	8'98	6'50	5'58	5'34	5'78	7'86
TOTAL	19'70	19'25	20'23	20'67	21'71	23'17	22'60	19'46	18'84	18'62	17'51	18'29	18'77	18'02	4'29	5'37	3'87	3'61	4'37	4'07	3'34	118'21	99'60	105'59	90'92	84'16	88'76	79'36	9'07	9'23	9'75	7'81	7'95	9'60	8'43
EASTERN:—																																			
Busoga	31'84	31'38	31'66	27'49	26'45	23'80	22'23	23'69	22'68	20'82	23'53	24'36	26'37	26'98	6'09	7'97	7'59	7'78	7'65	8'27	7'62	234'93	206'04	202'66	229'65	227'75	276'66	248'04	13'32	13'06	13'84	13'50	13'75	16'12	18'12
Budama	34'24	33'86	36'25	28'70	31'42	32'97	31'22	21'39	16'95	21'39	22'58	24'57	24'93	21'82	1'42	1'83	1'18	0'69	0'63	0'58	1'05	211'05	145'24	123'03	142'43	147'47	174'41	145'62	10'31	11'36	10'36	11'94	12'26	9'29	7'85
† Bugishu	43'31	37'82	46'45	30'55	33'52	38'13	34'05	23'75	20'10	24'87	23'25	21'53	26'07	20'72	6'46	5'76	5'32	5'20	5'05	5'03	5'40	231'84	172'86	196'68	272'87	207'00	217'66	200'36	13'94	11'82	11'26	12'48	8'70	11'48	11'77
† Bugwere	26'89	29'43	31'96	29'62	28'00	30'45	28'13	25'63	18'82	20'34	28'04	37'27	32'14	24'23	6'95	5'28	5'66	5'70	6'29	5'28	5'08	181'56	134'84	142'58	155'52	188'65	157'92	149'54	16'16	11'79	11'51	12'75	19'72	12'25	7'94
Teso	23'34	23'90	21'93	18'93	16'36	16'30	17'79	23'73	15'53	15'51	18'75	18'31	17'90	14'48	0'87	0'30	0'17	0'32	0'31	0'18	0'14	88'30	87'81	93'77	102'83	97'81	92'28	56'38	13'02	12'39	10'46	12'47	14'47	13'22	9'62
TOTAL	31'17	30'66	32'20	26'47	26'13	26'58	25'21	23'62	19'27	20'22	22'94	24'48	25'05	21'99	4'77	4'96	4'76	4'81	4'82	4'71	4'50	198'13	158'96	163'33	191'54	185'77	199'87	173'07	13'38	12'39	11'91	12'81	13'57	12'91	12'04
WESTERN:—																																			
Toro	24'26	21'12	20'92	22'58	19'98	21'37	20'09	21'70	17'30	16'00	16'76	16'73	20'28	17'88	5'71	5'58	3'81	3'83	3'28	4'01	3'61	377'57	278'54	207'66	190'40	223'29	202'47	139'59	19'25	19'08	14'58	23'18	10'30	12'97	13'33
Ankole	37'51	24'84	21'39	23'17	21'75	26'81	24'07	26'97	19'31	17'25	20'14	20'01	13'98	15'87	4'78	3'89	4'60	4'22	4'34	2'93	3'20	267'46	207'90	162'58	177'54	169'47	103'30	123'87	12'08	8'40	7'74	8'47	7'91	8'58	7'64
Kigezi	37'86	37'37	36'07	33'11	32'97	33'33	31'77	15'74	15'20	12'05	15'81	18'87	12'72	14'92	1'55	0'86	0'97	0'71	1'63	0'94	0'95	139'36	144'44	100'17	152'47	168'91	96'41	133'38	8'74	4'81	5'22	9'82	5'61	5'00	5'89
TOTAL	33'95	27'92	26'13	26'33	25'05	27'56	25'64	21'87	17'41	15'18	17'77	18'73	15'24	16'08	3'83	2'95	2'79	2'68	2'92	2'36	2'34	243'08	194'81	143'88	170'01	180'89	121'14	131'19	12'35	9'15	8'12	12'51	7'43	8'06	8'12
NORTHERN:—																																			
Lango	34'63	38'22	37'27	33'53	37'06	35'63	34'04	26'76	20'66	20'99	28'43	30'06	22'18	22'93	1'31	0'57	1'03	1'53	1'46	2'27	2'91	189'12	132'05	122'66	181'73	133'75	129'97	140'08	10'91	8'13	8'76	8'95	9'72	9'78	9'44
Bunyoro	18'03	19'17	20'38	16'90	17'57	18'96	15'84	21'59	21'33	20'59	18'47	14'56	14'32	14'43	21'13	18'98	16'01	14'69	11'90	10'43	10'00	244'17	172'08	167'46	136'83	105'24	93'42	107'20	4'97	3'33	6'87	5'76	3'51	4'95	4'45
§ Gulu	40'83	44'90	51'31	50'90	53'71	46'27	45'38	27'57	24'33	26'79	40'56	23'68	24'86	25'49	2'97	2'33	4'35	5'19	5'52	5'63	5'46	365'69	252'14	238'11	325'99	143'94	174'53	196'07	17'22	6'17	5'71	4'19	3'00	5'31	9'11
§ Chua	53'96	52'57	46'75	46'26	50'44	25'76	38'16	29'18	30'90	24'35	27'60	22'38	11'87	22'74	6'12	5'66	5'59	6'59	5'68	6'30	5'58	327'12	341'89	305'10	356'53	283'03	311'79	364'68	16'96	22'44	17'60	21'35	16'41	17'81	17'48
West Nile	27'80	28'41	25'54	22'66	23'12	20'66	18'69	11'61	11'42	10'00	11'88	9'11	10'27	10'90	3'60	3'56	2'26	2'64	2'68	2'31	2'82	234'19	259'10	243'55	329'84	279'61	316'23	314'10	47'92	23'95	35'27	50'40	20'16	46'11	32'01
TOTAL	32'73	34'58	33'83	31'25	33'40	28'73	28'48	21'37	19'32	18'49	23'10	19'31	16'41	18'16	5'04	4'26	4'19	4'57	4'19	4'25	4'44	258'54	223'33	206'14	271'89	191'31	197'45	219'78	22'39	13'87	15'66	19'26	11'19	17'43	14'87
UGANDA PROTECTORATE	29'18	28'11	28'39	26'05	26'43	26'42	25'38	21'75	18'30	18'43	20'58	20'66	19'60	18'95	4'53	4'46	4'09	4'08	4'19	3'97	3'79	209'71	173'19	160'64	188'53	165'88	158'64	155'67	14'60	11'56	11'81	13'48	10'60	12'28	11'17

† The population of Karamoja has been excluded from the total population and from all calculations of rates because no vital statistics are submitted from that district.

* The Entebbe District was amalgamated with the Mengo District on 1st November, 1936.

† The Bugishu and Bugwere Districts were amalgamated into the Central District on 1st January, 1937.

§ The Gulu and Chua Districts were amalgamated into the Acholi District on 1st January, 1937.

TABLE B.—VITAL STATISTICS RETURN OF THE UGANDA PROTECTORATE FOR THE YEAR 1937 (NATIVE POPULATION ONLY).

PROVINCE AND DISTRICT.	TOTALS FOR THE WHOLE YEAR.										ESTIMATED POPULATION.	RATES FOR THE YEAR.				
	Live Births.			Still Births.	Deaths					Birth Rate per 1000 Population.		% Still Births to Births plus Still Births.	Infantile Mortality Rate per 1000 Live Births.	Maternal Mortality per 1000 Births and Still Births.	Death Rate per 1000 Population.	
					Of Children under 1 Year.			Of Women in Child Birth.	All Other Deaths.							Total Deaths.
	M.	F.	Total.		M.	F.	Total.									
BUGANDA PROVINCE:—																
*Mengo { Mengo ...	3,643	3,283	6,926	224	329	294	623	71	6,114	6,808	351,468	19'71	3'09	89'96	9'93	19'37
Entebbe ...	1,950	1,918	3,868	41	122	112	234	27	2,585	2,846	190,359	20'32	1'05	60'50	6'91	14'95
Masaka ...	3,179	2,936	6,115	287	189	185	374	51	2,965	3,390	189,473	32'27	4'48	61'16	7'97	17'89
Mubende ...	1,630	1,534	3,164	142	189	173	362	26	2,572	2,960	156,944	20'17	4'30	114'41	7'86	18'85
TOTAL ...	10,402	9,671	20,073	694	829	764	1,593	175	14,236	16,004	888,244	22'60	3'34	79'36	8'43	18'02
EASTERN PROVINCE:—																
Busoga ...	4,342	4,225	8,567	707	1,098	1,027	2,125	168	8,104	10,397	385,422	22'23	7'62	248'04	18'12	26'98
Budama ...	2,407	2,510	4,917	52	363	353	716	39	2,682	3,437	157,464	31'22	1'05	145'62	7'85	21'82
†Bugishu ...	3,362	3,231	6,593	376	661	660	1,321	82	2,608	4,011	193,565	34'05	5'40	200'36	11'77	20'72
†Bugwere ...	2,502	2,520	5,022	269	352	399	751	42	3,532	4,325	178,515	28'13	5'08	149'54	7'94	24'23
Teso ...	2,510	2,368	4,878	7	137	138	275	47	3,649	3,971	274,238	17'79	0'14	56'38	9'62	14'48
†Karamoja ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL ...	15,123	14,854	29,977	1,411	2,611	2,577	5,188	378	20,575	26,141	1,189,204	25'21	4'50	173'07	12'04	21'99
WESTERN PROVINCE:—																
Toro ...	2,137	1,839	3,976	149	306	249	555	55	2,928	3,538	197,858	20'09	3'61	139'59	13'33	17'88
Ankole ...	3,487	3,480	6,967	230	460	403	863	55	3,676	4,594	289,484	24'07	3'20	123'87	7'64	15'87
Kigezi ...	4,137	3,930	8,067	77	575	501	1,076	48	2,665	3,789	253,939	31'77	0'95	133'38	5'89	14'92
TOTAL ...	9,761	9,249	19,010	456	1,341	1,153	2,494	158	9,269	11,921	741,281	25'64	2'34	131'19	8'12	16'08
NORTHERN PROVINCE:—																
Lango ...	4,079	3,838	7,917	237	583	526	1,109	77	4,148	5,334	232,585	34'04	2'91	140'08	9'44	22'93
Bunyoro ...	953	866	1,819	202	115	80	195	9	1,453	1,657	114,807	15'84	10'00	107'20	4'45	14'43
§Gulu ...	2,500	2,483	4,983	288	501	476	977	48	1,774	2,799	109,766	45'38	5'46	196'07	9'11	25'49
§Chua ...	1,758	1,645	3,403	201	639	602	1,241	63	724	2,028	89,178	38'16	5'58	364'68	17'48	22'74
West Nile ...	2,579	2,308	4,887	142	807	728	1,535	161	1,155	2,851	261,484	19'69	2'82	314'10	32'01	10'90
TOTAL ...	11,869	11,140	23,009	1,070	2,645	2,412	5,057	358	9,254	14,669	807,820	28'48	4'44	219'78	14'87	18'16
UGANDA PROTECTORATE ...	47,155	44,914	92,069	3 631	7,426	6,906	14,332	1,069	53,334	68,735	3,626,549	25'38	3'79	155'67	11'17	18'95

† The population of Karamoja has been excluded from the total population and from all calculations of rates because no vital statistics are submitted from that district.

* The Entebbe District was amalgamated with the Mengo District on 1st November, 1936.

† The Bugishu and Bugwere Districts were amalgamated into the Central District on 1st January, 1937.

§ The Gulu and Chua Districts were amalgamated into the Acholi District on 1st January, 1937.

TABLE C.—TABLE SHOWING INCREASE OR DECREASE OF REPORTED
BIRTHS OVER REPORTED DEATHS FOR FIVE DISTRICTS
FOR THE LAST 20 YEARS.

Year.	Buganda.	Busoga.	Bunyoro.	Ankole.	Toro.	Total Increment.
1918 ..	— 3,873	+ 1,553	— 2,851	+ 776	+ 1,057	— 2,738
1919 ..	— 5,709	— 3,135	— 2,061	— 1,870	— 176	— 12,951
1920 ..	— 2,204	+ 2,025	— 1,012	+ 496	+ 907	+ 212
1921 ..	— 711	— 1,483	— 997	+ 889	+ 1,896	— 406
1922 ..	— 1,458	+ 2,953	— 891	+ 1,503	+ 1,872	+ 3,979
1923 ..	— 624	+ 2,194	— 856	+ 1,611	+ 1,670	+ 3,995
1924 ..	+ 37	+ 3,295	— 970	+ 2,329	+ 2,924	+ 7,615
1925 ..	+ 1,059	+ 5,726	— 818	+ 3,727	+ 3,253	+ 12,947
1926 ..	+ 1,179	+ 5,314	— 500	+ 2,891	+ 3,602	+ 12,486
1927 ..	+ 3,475	+ 5,703	— 443	+ 4,446	+ 3,955	+ 17,136
1928 ..	+ 1,091	+ 4,656	— 492	+ 4,848	+ 3,686	+ 13,789
1929 ..	+ 1,357	+ 5,572	— 329	+ 4,238	+ 3,505	+ 14,343
1930 ..	— 940	+ 3,799	— 801	+ 3,139	+ 1,571	+ 6,768
1931 ..	+ 213	+ 3,084	— 406	+ 2,945	+ 497	+ 6,333
1932 ..	+ 357	+ 3,322	— 246	+ 1,556	+ 743	+ 5,732
1933 ..	+ 1,474	+ 4,184	— 24	+ 1,167	+ 962	+ 7,763
1934 ..	+ 2,769	+ 1,536	— 179	+ 858	+ 1,143	+ 6,127
1935 ..	+ 3,001	+ 813	+ 343	+ 494	+ 640	+ 5,291
1936 ..	+ 3,828	— 997	+ 531	+ 3,682	+ 218	+ 7,262
1937 ..	+ 4,069	— 1,830	+ 162	+ 2,373	+ 438	+ 5,212

European Officials.

78. Only those officials whose names appear in the Protectorate Staff List are shown in Table D. Wives and families are not included.

TABLE D.

79. Table showing the sick, invaliding and death rates of European officials, during the last three years:—

	1935	1936	1937
Total number of officials resident	551	570	595
Average number resident	442	462	499
Total number on sick list	816	746	883
Total number of days on sick list	2,405	2,914	2,638
Average daily number on sick list	6·58	7·98	7·23
Percentage of daily sick to average number resident ..	1·49	1·73	1·49
Average number of days on sick list each patient ..	2·94	3·91	2·99
Average sick time each resident	5·44	6·31	5·29
Total number invalided	1	1	1
Percentage of invalidings to total residents	0·18	0·18	0·17
Total deaths	1	..	4
Percentage of deaths to average number resident ..	0·22	..	0·80
Percentage of deaths to total residents	0·18	..	0·67
Number of cases of sickness contracted away from station .. ..	..	No record	..
Number granted local sick leave	32	30	37
Average number of days sick leave for each patient granted local sick leave	21·06	18·46	17·38

The principal causes of sickness were:—

Malaria, 243; Diseases of the digestive system 79; Injuries, 56; Diseases of the respiratory system, 58; Influenza, 57.

80. Medical Boards were held on 12 European officials with the following results:—

(a)	To be invalided out of the service	..	..	..	..	1
	Chronic neuritis of the left sciatic nerve	..	..	..	1	
(b)	To proceed on home leave for treatment	..	..	..	..	5
	Tumour in the abdomen	..	..	..	..	1
	Pulmonary tuberculosis	..	..	..	..	2
	Peptic ulcer	..	..	..	..	1
	Fever of uncertain origin	..	..	..	..	1
(c)	To proceed on home leave	..	..	..	..	2
	Debility	..	..	..	..	1
	Nervous breakdown	..	..	..	..	1
(d)	To be posted to a healthy station	..	..	..	..	2
	Insomnia	..	..	..	..	1
	Nervous breakdown	..	..	..	..	1
(e)	To remain in Kampala till cured	..	..	..	..	1
	Chronic ulcer on the inner side of the right knee	..	..	..	..	1
(f)	To consider fitness or otherwise to complete tour of service	..	..	..	..	1
	Malaria	..	..	..	..	1

81. *Deaths*.—Four deaths were recorded, the causes being:—

Pulmonary embolism following operation for appendicitis	..	..	1
Heart failure following acute enteritis	..	..	1
Died at sea—cause unknown	..	..	1
Blackwater fever	..	..	1

European Non-Officials.

82. 1,837 cases of illness among the European non-officials were treated by Government medical officers. The number in 1936 was 2,330. Principal causes:—

Malaria, 371; Diseases of digestive system, 110; Injuries, 113; Diseases of respiratory system, 80; Influenza, 51.

83. *Deaths*.—Sixteen deaths were recorded, the causes of which were:—

Blackwater fever, 4; Heart failure following gastro-enteritis, 1; Cerebral malaria, 1; Pneumonia, 2; Cirrhosis of the liver, 2; Heart failure, 2; Haematemesis, 1; Suicide, 2; Misadventure, 1.

Asian Officials.

84. In Table E, officials of the Kenya and Uganda Railways and Harbours, artisans employed by the Public Works Department on temporary agreement, and the wives and families of all officials are omitted.

TABLE E.

85. Table showing the sick, invaliding, and death rates of Asian officials during the last three years:—

	1935	1936	1937
Total number of officials resident	359	367	387
Average number resident	304	306	323
Total number on sick list	622	542	580
Total number of days on sick list	1,637	1,850	1,648
Average daily number on sick list	4·48	5·07	4·02
Percentage of daily sick to average number resident ..	1·15	1·66	1·79
Average number of days on sick list for each patient ..	2·63	3·41	2·84
Average sick time each resident	5·37	6·04	5·10
Total number invalided	3	6	3
Percentage of invalidings to total residents	0·83	1·63	0·78
Total deaths .. .. .	..	1	..
Percentage of deaths to total residents .. .. .	..	0·28	..
Percentage of deaths to average number resident ..	..	0·34	..
Number of cases of sickness contracted away from station .. .. .	..	No record	..
Number granted local sick leave	7	2	6
Average number of days on sick leave for each patient granted sick leave	18·29	19·00	20·00

The principal causes of sickness were:—

Malaria, 265; Diseases of the digestive system, 73; Injuries, 57; Diseases of the respiratory system, 114; Influenza, 49.

86. Medical Boards were held on eight Asian officials with the following results:—

(a)	To be invalided out of the service	3
	Cirrhosis of the liver	1
	Anxiety neurosis	1
	Defective vision	1
(b)	To be sent to India for treatment	3
	Ununited fracture of the neck of the femur	1
	Pellagra	1
	Dislocation of hip	1
(c)	To determine whether fit for full duty anywhere in the Protectorate ..	1
(d)	To be given dental treatment and kept under medical observation for a period of six months	1

87. *Deaths.*—Nil.

Asian Non-Officials.

88. 8,124 cases of sickness among the non-official community were treated by the Government medical staff. The number in 1936 was 7,024. The principal causes of sickness were: Malaria, 2,504; Diseases of digestive system, 382; Injuries, 495; Diseases of respiratory system, 276; Influenza, 181; Dental caries, 36.

89. 75 deaths were reported to this department. The causes were:—

Blackwater fever	15	Measles	1
Broncho-pneumonia	6	Cerebral malaria	4
Lobar pneumonia	6	Obstructed labour	1
Pneumonia (unclassified)	4	Placenta praevia	1
Malaria	4	Hydrocephalus	1
Puerperal sepsis	2	Infantile diarrhoea	2
Injuries	4	Carcinoma	1
Prematurity	1	Pancreatitis	1

Cellulitis	1	Dysentery (undefined)	1
Idiopathic hypochromic anaemia	1	Cerebro-spinal meningitis	2
Postpartum haemorrhage	2	Diabetes	1
Congenital debility	2	Dementia	1
Nephritis	1	Appendicitis	1
Tuberculous meningitis	2	Hernia	1
Eclampsia	1	Haemorrhage of undetermined cause	1
Intestinal obstruction	1	Valvular disease of the heart	1
Ascending paralysis of the spinal cord	1		

African Officials (African Civil Service).

TABLE F.

90. Table showing the sick, invaliding, and death rate of African civil servants, excluding wives and families:—

	1935	1936	1937
Total number of officials resident	140	178	212
Average number resident	140	178	212
Total number on sick list	88	58	93
Total number of days on sick list	276	229	220
Average daily number on sick list	0·75	0·63	0·60
Percentage of daily sick to average number resident ..	0·54	0·35	0·28
Average number of days on sick list for each patient ..	3·14	3·95	2·36
Average sick time each resident	1·97	1·29	1·03
Total number invalided .. .. .	..	..	..
Percentage of invalidings to total residents .. .. .	..	..	..
Total deaths .. .. .	..	1	1
Percentage of deaths to total residents .. .. .	..	0·56	0·47
Percentage of deaths to average number resident ..	..	0·56	0·47
Number of cases of sickness contracted away from station .. .. .	..	No record	..
Number granted local sick leave .. .. .	..	..	1
Average number of days on sick leave for each patient granted sick leave .. .. .	..	..	21

91. *Death*.—One death was recorded from septicaemia.

SECTION III.—HYGIENE AND SANITATION.

A. General Review of Work Done and Progress Made.

I. Preventive Measures.

(a) INSECT-BORNE DISEASES.

92. *Malaria*.—The use of anti-malarial mixture and paris green as larvicides, as well as the filling in of wells and depressions capable of containing water, are routine anti-malarial measures in most stations. Drainage has been carried out at Kabale, Masindi, Gulu, Lira, Soroti, Jinja and Mbale, and swamp planting at Hoima, Kampala and Tororo.

At Kampala the lowering of the bed of the Nakivubo river is in progress; there is little prospect of reducing many of the swampy areas outside the township until this has been done. In co-operation with the Kenya and Uganda Railways and Harbours, reclamation of the swamp behind the oil godowns by controlled tipping and drainage is in progress. The extensive drainage and building operations at present being carried out have created a number of mosquito breeding places which have needed special attention. At Jinja, revetting of the lake shore between the pier and Fisherman's Point, and the reclamation of the low lying ground behind the revetment, continued. Controlled tipping in a portion of this area has been a valuable anti-malarial measure, as well as an efficient method of refuse disposal. Sub-soil drainage was also carried out.

93. *Trypanosomiasis*.—The Victoria Nyanza area remained free of the disease. Owing to the danger of infection being introduced from other infected foci, clearings are maintained, and the sleeping sickness rules enforced to prevent uncontrolled settlement of the Lake shore.

In the Lake Edward–George area no change was made in the general methods employed, but it was found possible to advise that two clearings should be abandoned. Re-settlement continues in the area and the position is regarded as being satisfactory. Fishing is still allowed at Katwe and Katunguru. All those engaged in fishing are examined and given prophylactic injections of antrypol every three months.

Re-population continued in Gulu in accordance with the conditions mentioned in last year's Report. The best method of ensuring adequate control of the return of the people to the areas thrown open to settlement is under consideration.

In Madi one case of proved sleeping sickness, and one suspect were found at Obongi, but both had come from Rhino Camp; the outbreak

reported from this place last year now appears to have subsided. 4 cases were found at Palarina and three-monthly inspections are now being carried out there.

In the West Nile the position is improving. As a result of the continued intensive medical examination of the people referred to in the 1936 Report, practically the whole population of the infected areas has been under constant observation. Cases are thus discovered early and treated, and there has been a consequent reduction in the number of persons infected. The "rod" clearings mentioned in last year's Report are referred to in Appendix I (page 59). Other methods of dealing with sleeping sickness remain as last year.

It is of interest to note that injections of Bayer "205" were reported to relieve asthmatical symptoms in cases of trypanosomiasis. Experiments made with persons who were suffering from asthma but who were free from sleeping sickness, showed that in these cases too the drug was beneficial.

94. *Plague*.—There were 515 cases with 478 deaths compared with 980 cases with 929 deaths in 1936.

In Busoga there was a slight increase in the number of cases reported. One Asian contracted bubonic plague in Busembatia; this department received whole hearted co-operation from the residents in the township in the measures which were immediately put into force, and no further case occurred. African health orderlies, trained in anti-plague measures, are posted in endemic centres of the district. They investigate suspected cases reported by the chiefs, and advise on preventive measures to be taken, which usually consist in deroofing the hut and rethatching.

At Kampala the routine methods described in last year's Report were continued. In October a case of pneumonic plague occurred in a house within ten yards of the township boundary at old Kampala. Inoculation of possible contacts, disinfestation of the house with cyanogas, grass-cutting and rat-trapping were carried out. A few days later a sanitary student found a woman in a hut close by suffering from fever and cough, and suspected that she was suffering from plague. She was removed to hospital and died later from pneumonic plague. Shortly after a further case of pneumonic plague occurred in the house of the first patient. No further infection occurred and it was possible to lift the quarantine in the middle of November.

95. *Yellow Fever*.—In view of the suspicious cases reported by the District Medical Officer, Masaka, in 1936, and of the proximity of Masaka to Kampala, the first investigations undertaken by the Yellow Fever Commission were in that district. No cases of clinical yellow fever were seen. Sera from 35 cases of fever of undetermined origin were inoculated into animals with negative results. Protection tests were carried out during the survey. Sera from 37 children were all negative, whilst 6 from 174 adults were positive.

In Bunyoro, investigations were made in the Kiryandongo area from April until July. Three cases were seen which might have been mild yellow fever. Laboratory investigations were negative. Protection tests taken in this area showed that the sera of 3 out of 128 children, and 4 out of 58 adults, gave positive protection tests.

In Chua advantage was taken of the annual inspection for sleeping sickness, to examine a large percentage of the population. Approximately 80,000 people were seen. None of the 13 sera taken from persons with febrile symptoms, when inoculated into white mice, produced any reaction. Protection tests gave positive results in 4 out of 152 sera tested.

Work was commenced in the West Nile district and continued until the end of the year. Seventeen sera were inoculated into white mice. In the case of a woman aged 37, who, although she showed no symptoms, had a temperature of 100.6° F., the mice inoculated either died or were sacrificed whilst sick or moribund. The infective agent obtained has been through several passages in mice. A protection test has shown that it is not the virus of yellow fever. Protection tests were positive in 4 out of 136 sera.

Investigations were carried out in the Bwamba county of Toro District in March and 25 sera from 53 adults proved positive. The area was visited during late July, August, September and October. Twenty sera were inoculated into animals, but were all negative. During December the labourers working on the construction of the Fort Portal-Bundibugyo road were kept under close observation. One case which presented clinical symptoms suggestive of yellow fever was seen, but the serum produced no reaction in white mice. Serum from another case produced encephalitis in white mice, but laboratory tests showed that it was not the yellow fever virus. Protection tests were carried out in a group of 141 people of all ages. Sera from 16 were positive. The distribution in the different age groups is shown in the following table:—

Age group.				Number tested.	Number positive.
1—4	..	..	..	23	0
5—9	..	..	..	34	2
10—14	..	..	..	21	2
15—19	..	..	..	26	2
20—29	..	..	..	25	5
30—39	..	..	..	9	3
40 and over	..	..	..	3	2
TOTAL				141	16

Such a result suggests that the jungle type of yellow fever may be present in Bwamba.

Measures to combat *Aedes aegypti* have been continued in all townships where they are found. Reference is made in Appendix I to surveys made of Kampala and Entebbe, and of aerodromes.

The spraying of Imperial Airways' flying boats continues at Port Bell and Butiaba.

(b) EPIDEMIC DISEASES.

96. *Cerebro-spinal Meningitis*.—No epidemics occurred but the disease appears to be endemic in the Western Province, and Masaka. All cases reported from Busoga are stated to have occurred in immigrant labour. Segregation of contacts in temporary shelters has been continued.

97. *Smallpox*.—No smallpox was reported. Vaccinations were carried out as follows:—

Province and District.					Population.	Number of vaccinations performed.
BUGANDA PROVINCE—						
Mengo East district	..	..	..	..	351,468	82,098
Mengo West district	..	..	..	..	190,359	248
Masaka district	..	..	..	..	189,473	4,352
Mubende district	..	..	..	..	156,944	21,896
TOTAL	..	..	..	..	888,244	108,594
EASTERN PROVINCE—						
Busoga district	..	..	..	..	385,422	17,214
Central district	..	..	..	..	372,080	110,417
Budama district	..	..	..	..	157,464	65,948
Teso district	..	..	..	..	274,238	22,364
TOTAL	..	..	..	..	1,189,204	215,943
WESTERN PROVINCE—						
Ankole district	..	..	..	..	289,484	95,179
Kigezi district	..	..	..	..	253,939	16,691
Toro district	..	..	..	..	197,858	200
TOTAL	..	..	..	..	741,281	112,070
NORTHERN PROVINCE—						
Bunyoro district	..	..	..	..	114,087	34,322
Acholi district	..	..	..	..	89,179	9,497
Lango district	..	..	..	..	232,585	107,099
TOTAL	..	..	..	..	436,571	150,918
GRAND TOTAL	..	..	..	..	3,255,300	587,525

(c) HELMINTHIC DISEASES.

98. Infections with *Ascaris* and *Ancylostoma* occur widely though clinical symptoms of their presence are usually not obvious. Persons found to be suffering from intestinal parasites are treated with anthelmintic drugs, but re-infection is almost bound to occur under present conditions of living, so that campaigns for mass treatment of helminthiasis have not been organised as yet. Preventive measures are directed mainly towards the provision of latrines and to propaganda to encourage more sanitary habits.

99. *T. saginata* is a common parasite especially in the Western Province. Meat inspection is carried out in all the large townships either by members of the Veterinary Department or by sanitary inspectors, and infested meat is destroyed.

100. Dracontiasis is confined to the Nilotic districts of the Northern Province. Natives are being encouraged to boil their drinking water or to strain it through a cloth before use. Efforts are being made to provide safer supplies by protecting springs and arranging the outflow through a spout.

II. General Measures of Sanitation.

101. The water-borne sewage scheme for the commercial area of Kampala is not yet completed. It is expected that it will be finished

in 1938. The single bucket system is used in the larger townships, and in some of the smaller townships. The double bucket system is used in the government quarters in Fort Portal, where the Indore system of night-soil disposal has been tried out with marked success. The provision of a filtered and chlorinated piped water supply and septic tank system for Government houses was partially completed both in Mable and in Entebbe. Protection of water supplies in rural areas continued.

III. School Hygiene.

102. In most districts, frequent visits were made by medical officers and assistants to schools. Defects in sanitation were pointed out, and general improvement in the standard of school buildings was reported although much still remains to be done, particularly in some of the boarding schools. In Busoga the Senior African Medical Assistant made a physical examination of the pupils at Mwiru College; treatment for intestinal parasites and for other diseases which he found, was given at Jinja. The experiment in nutrition referred to in last year's Report was carried out in a school in Mengo district. The result was encouraging, and a report will be found in Appendix II. The investigations continue. A similar experiment was commenced in Teso, but was not completed at the end of the year.

IV. Labour Conditions.

103. The standard of housing of labour continues to improve. Several medical officers report that conditions are more satisfactory. An employer of labour in the West Nile district provides an excellent ration including a generous meat supply. He is re-organizing the housing of his employees in a manner which is expected to prove most satisfactory. Construction continued on the Bwamba road. Again no epidemics of dysentery or enteritis occurred, whilst there was a marked freedom from ulcers, which is attributed partly to the fact that immediate attention is given to any slight injury which may occur during the work, but chiefly to the improved diet which is provided. Camps for road maintenance gangs employed by the Public Works Department are being improved, though a good deal still remains to be done.

V. Housing and Town Planning.

104. Many medical officers report that new Asian dwellings are now being built to a better design and that building rules are strictly enforced. At Kabale improvements have been made in the bazaar. The district medical officer reports that now each living room is well lighted and ventilated and has a sound cement floor, and that kitchens and stores are satisfactory. Overcrowding still remains common. African housing is slowly improving and several district medical officers report that Africans are taking an interest in model housing. In Lira the temperature in a house which had the roof lined with "Turnal asbestos aluminium foil" was found to be 5°F—7°F lower than in a similar house not so lined. A new type of roofing, consisting of packing case boards nailed on to poles and covered with strips of hessian which are afterwards painted with Colas, is under trial. It is light and cheap, and so far has

stood weathering by sun and rain. Extra rooms are being provided in the smaller type of European official quarters and in Asian officials' houses.

VI. Food in Relation to Health and Disease.

105. The Nutrition Sub-committee of the Agricultural Survey Committee issued their report. There is ample evidence that large sections of the population suffer from malnutrition, and that, although in many cases plenty of food is available, diets often lack some of the necessary constituents. The report indicates the lines along which research should be made and suggests how administrative and departmental officers can assist in bringing about an improvement. It has been widely distributed for that purpose. As already mentioned experiments with milk diets are being carried out in Mengo district and in Teso.

Farm schools at Lira and Gulu give an opportunity for the training of selected youths in improved methods of farming small holdings and in getting the best possible monetary return without injury to the land. After the period of instruction at the farm school, these Africans return to their own small holdings and become an example to their neighbours.

Agricultural surveys of "mutalas" in different parts of the country have been made to determine the quantity and quality of food stuffs which are normally grown by the inhabitants. These will be followed by nutritional surveys of the population by a medical officer who has been detailed for this duty.

One of the common criticisms of the African diet is the comparative lack of protein in it as judged by European standards. It is interesting to note the increased consumption of fish and meat which is gradually becoming the rule in the wealthier and more advanced areas of the country. Lorries carry fish caught and smoked by the settlement of fishermen at Katwe to Masaka and Kampala, as well as large quantities of salted fish to the Belgian Congo. Again an increasing number of African-owned butcher stalls are being erected, all of which are not in townships but dotted at intervals along many of the main roads. Although however it is satisfactory to note that more meat is being eaten, it is regrettable to have to say that the majority of stalls are not really sanitary, and this aspect of native food supplies will require attention.

In Lango 21 cases of scurvy were reported, and two outbreaks of famine oedema, another vitamin deficiency disease, occurred in a Native Administration prison. The Medical Superintendent, Mulago Hospital, reports that signs of vitamin A deficiency appear when sweet potatoes do not form part of the diet in the Central Prison.

In one district meat inspection is undertaken in Native Administration markets in the vicinity of the township, with the object of preventing taeniasis. Infested meat is not condemned but when *C. bovis* is found, buyers are advised not to eat the meat until they have thoroughly cooked it.

The scheme for the sale of milk in Kampala referred to in last year's Report was not put into force as existing legislation did not provide for it. Rules for regulating the sale of milk are in the course of preparation and when these are published the matter will be raised again.

B. Measures Taken to Spread the Knowledge of Hygiene and Sanitation.

106. It was not found possible to hold a health exhibition, but health propaganda has been carried out in all districts. In Lango, in order to follow up the successful exhibition held in 1936, prizes have been given for the best cared for infant each month, and a competition was organized for a trophy for the school which made most sanitary progress. Five model small holdings have been added to the farm school at Gulu. They compare most favourably with the exhibit at Lango from which they are mainly designed. The protected springs and wells which have been built in many places, have not only given a safer supply but have also educated the population generally to prefer clean to muddy water. There are reports from several medical officers that natives will walk quite long distances to get water from a new well although water of an inferior character may be nearer their homes.

A fishing village in connection with the Katwe native fishing industry was completed. The site had been laid out by a sanitary inspector, and the houses erected by the fishermen themselves. The buildings comprise a two-roomed house with separate kitchen, store and latrine for the owner of each plot, and round huts and latrines are also supplied for those porters who are not local residents.

A new coloured health poster has been prepared and it is hoped that this will make more appeal to the African than the previous type in black and white. A film projector has been obtained for showing health propaganda films. Talks have been given on various health subjects at lukikos.

The clearing up of native slums in Jinja has proceeded satisfactorily. Plots have been surveyed, and a model house with cement floors, pisé-de-terre walls, and a corrugated iron roof, has been erected on one by the department at a cost of £80. This amount is larger than the great majority of Africans can afford; and experiments have been commenced with cheaper building materials including the roof material referred to in Section I.

Medical officers have paid attention to hygienic conditions in Asian bazaars. Stress has been laid on the importance of the proper preparation of food, including cleanliness of utensils, and the provision of food safes. Efforts have been made to prevent the storing of food stuffs and trade goods in sleeping rooms.

There is evidence of considerable change in the type of dwelling in Buganda Province especially near Kampala. Round huts are being replaced by rectangular houses with shutter windows and wooden doors. Ventilators are frequently provided, and in a number of cases the roofs are made of corrugated iron sheets. This is particularly welcome as, apart from the Kampala Health Show in 1934, no intensive propaganda has been made by the department in Buganda, and the movement for better housing is therefore a voluntary one on the part of the people themselves.

SECTION IV.—PORT HEALTH WORK AND ADMINISTRATION.

Not applicable.

SECTION V.—MATERNITY AND CHILD WELFARE.

107. 16,676 women attended for ante-natal supervision compared with 16,689 in 1936. A further 3,511 who had commenced attending in 1936, continued their visits. This was an increase of 2,007. The following are the figures for some of the larger centres:—

	1936		1937	
	New cases.	Attendances.	New cases.	Attendances.
Entebbe	385	1,517	404	2,050
Mulago	1,122	5,884	1,205	4,424
Masaka and dispensaries ..	1,572	12,900	1,459	13,227
Mbale and dispensaries ..	3,327	13,220	3,987	8,621
Bugembe	467	3,094	524	2,574
Masindi and dispensaries ..	528	6,572	493	5,165
Hoima and dispensaries ..	1,006	6,844	672	4,208
Soroti and dispensaries ..	2,831	7,828	2,023	8,368
Mbarara and dispensaries ..	577	1,788	758	2,269
Fort Portal and dispensaries ..	1,936	4,201	2,246	4,766
Kabale and dispensaries ..	588	960	1,506	3,370
Mubende and dispensaries ..	708	2,954	398	1,330

1,745 women who had attended for ante-natal supervision terminated their pregnancies in hospital or at maternity centres. A further 484 who had not availed themselves of ante-natal treatment were delivered in hospital.

The following table gives the results:—

	Women who had attended for supervision.	Women who had not attended.
Number of women confined	1,745	484
Pregnancies resulting in—		
(a) Miscarriage	72	82
(b) Still-birth	97	91
(c) Living child	1,576	311
Percentage resulting in living child	90·3	64·2
Number of maternal deaths	62	42

The figures for those who did not attend for ante-natal supervision again compare unfavourably with those who did.

108. The following table gives the results of pregnancy, as far as they are known, for women who were confined in their own homes after attending for ante-natal supervision:—

Total	2,116
Miscarriage	53
Still-birth	39
Living child	2,024
Maternal death	16

109. The following table gives the number of confinements and their results in certain institutions:—

				Confinements excluding miscarriage.	Still-births.	Living births.	Maternal deaths.
Entebbe	..	..	..	91	3	88	..
Mulago	..	..	..	232	13	219	4
Masaka	..	..	..	345	16	329	3
Bugembe	..	..	..	128	8	120	..
Kamuge	..	..	..	141	9	132	..
Serere	..	..	..	106	3	103	..
Butaleja	..	..	..	74	2	72	3

110. The following obstetric operations were performed:—

Caesarian section	..	..	..	..	17
Forceps delivery	..	..	..	..	72
Perforation and cranioclastm	..	..	..	..	15
Internal version	..	..	..	..	6
Removal of retained placenta	..	..	..	..	30

111. 17,792 infants attended welfare centres. This number only includes healthy or relatively healthy children brought up for supervision. Sick children are shewn under diseases in the sick returns from hospitals and dispensaries.

112. The following table gives the number of children attending child welfare clinics in certain districts:—

				1936 Number of infants.	Attendances.	1937 Number of infants.	Attendances.
Entebbe	..	..	..	306	487	318	839
Bugembe	..	..	..	497	2,585	275	1,537
Mulago Hospital, Kampala, and dispensaries	..	..	..	880	2,117	423	2,015
Masindi and dispensaries	..	..	..	444	7,091	431	5,451
Soroti and dispensaries	..	..	..	2,711	4,124	3,120	12,823
Mbarara and dispensaries	..	..	..	2,613	3,257	2,409	5,408
Hoima and dispensaries	..	..	..	781	4,551	777	3,121
Fort Portal and dispensaries	..	..	..	934	1,636	1,246	4,245
Lira and dispensaries	..	..	..	4,837	10,611	3,694	9,272
Kabale and dispensaries	..	..	..	4,266	6,855	3,961	6,425

REPORT ON THE LADY CORYNDON MATERNITY TRAINING SCHOOL.

113. There was an average number of 39 students in training each month. Fourteen were successful in the examination for the Certificate of the Uganda Midwives Board.

114. The appended table gives the number of patients admitted to the wards attached to the school:—

Total admissions	..	..	569	Babies born before arrival	..	37
Total confinements including those born before arrival	..	..	410	Miscarriages	..	35
Living babies born	..	..	312	Threatened miscarriage	..	50
Still-births	..	..	61	Maternal deaths	..	33
				Infant deaths	..	14

115. The causes of maternal deaths were:—

Albuminuria	..	..	..	..	..	2
Pneumonia	..	..	..	..	..	2
Peritonitis	..	..	..	..	..	1
Pelvic cellulitis	..	..	..	..	..	1
Perforation of bowel	..	..	..	..	..	1
Obstructed labour	..	..	..	..	..	15
Septicaemia	..	..	..	..	..	4
Post-partum haemorrhage from retained placenta	..	..	..	..	..	3
Ante-partum haemorrhage	..	..	..	..	..	2
Ruptured uterus	..	..	..	..	..	2

116. The following operations were performed:—

Caesarian section	..	..	..	..	12
Forceps delivery	..	..	..	..	56
Perforation and cranioclasia	..	..	..	..	5
Internal version	..	..	..	..	2
Retained placenta	..	..	..	..	4
Other operations	..	..	..	..	1

117. The causes of infant deaths were:—

Born in white asphyxia, 1; Septicaemia from septic cords, 2; Prematurity, 11.

118. In the out-patient department 2,948 expectant mothers attended for the first time. Syphilis was found in 370 cases. Post-natal supervision of 651 babies was also undertaken.

REPORT ON THE COUNTRY CENTRES.

	Confinements, including babies born before admission but excluding miscarriage.	Still-births.	Living children born.	Miscarriages.	Threatened miscarriage.	Other conditions.	Maternal deaths.	Infant deaths.	New ante-natal cases.	Infant welfare.	Total out-patient attendances.
Bushenyi	78	2	76	2	..	..	1	3	265	697	2,582
Ibanda	46	1	45	1	1	..	..	..	147	994	2,865
Iganga	83	4	79	1	4	..	..	3	463	1,858	7,544
Jungo	91	1	90	3	1	..	..	2	446	670	2,781
Kabasanda	72	4	68	2	1	..	..	2	723	464	3,656
Kabuwoko	97	6	91	3	8	..	..	1	1,022	688	1,988
Kabwohe	62	2	60	1	4	..	..	..	110	855	2,818
Kako	80	3	77	..	..	..	..	2	924	669	3,159
Kapeka	77	3	74	1	1	..	..	2	538	345	2,217
Kasaka	41	2	39	1	2	..	..	2	640	419	2,761
Kiboga	96	3	93	2	..	..	1	2	486	367	2,666
Kikoma	not available.					..	..	..	..	..	..
Kiira	31	6	25	4	..	..	..	..	158	218	1,505
Lutete	103	6	97	5	11	..	1	2	764	475	2,747
Luwero (4 months)	13	..	13	..	..	..	..	2	180	174	1,013
Mbarara	91	4	87	2	2	..	..	1	270	1,236	4,008
Mityana	75	5	70	8	3	..	2	..	668	545	4,070
Mukono	166	16	150	14	14	..	..	1	989	839	7,227
Nakifuma	141	9	132	3	8	..	..	2	796	976	4,879
Namulonge	60	4	56	4	9	..	1	4	392	416	2,099
Ndeje	58	5	53	6	12	..	..	3	559	211	1,939
Ngogwe	48	..	48	2	7	..	..	3	644	563	3,219
TOTAL	1,609	86	1,523	65	85	..	6	37	11,184	13,899	68,742

119. The building programme has been restricted to the erection of houses for the midwives at country centres. A new house for the midwife has been completed at Kabuwoko near Masaka. New houses are nearing completion at Kikoma, Iganga and Lutete. A further house is under construction at Mityana. The centre at Luwero has been closed.

REPORT ON NSAMBYA MATERNITY TRAINING SCHOOL.

120. During 1937 there were from 30—33 native pupil midwives in training. Three European sisters also attended the course. Out of 13 who entered for the Certificate of the Uganda Midwives Board, 7 were successful. Three others have to be re-examined in one section.

121. During 1938 the students will occupy the new quarters which contain dormitories, refectory, recreation and classrooms.

122. The appended table gives the number of patients admitted to the wards attached to the school:—

Total admissions	..	..	371	Maternal deaths	..	..	10
Total confinements excluding miscarriage	..	..	295	Infant deaths	..	..	16
Miscarriages	..	..	18	Number of new women for ante-natal treatment	..	..	573
Still-births	..	..	35	Number of attendances	..	..	3,396
Living children born	..	..	260	Number of infants attending	..	..	300
Threatened miscarriage	..	..	14	Number of attendances	..	..	624
Other conditions	..	..	44				

123. The following operations were performed:—

Caesarian section	..	..	10	Internal version	..	..	4
Forceps delivery	..	..	16	Retained placenta	..	..	13
Perforation and cranioclastm	..	..	1	Perineal repair	..	..	60

124. The causes of maternal deaths were:—

Obstructed labour	..	..	2	Ruptured uterus	..	..	4
Pneumonia	..	..	2	Eclampsia	..	..	1
Puerperal sepsis	..	..	1				

125. The causes of infant deaths were:—

Prematurity	..	..	9	White asphyxia	..	..	5
Congenital syphilis	..	..	1	Icterus neonatorum	..	..	1

126. *Report on the country centres:—*

		Confinements, including babies born before admission but excluding miscarriage.	Still-births.	Living children born.	Miscarriages.	Threatened miscarriage.	Other conditions.	Maternal deaths.	Infant deaths.	New ante-natal cases.	Infant welfare.	Total out-patient attendances.
Ngora	..	117	1	116	8	10	..	..	3	203	90	10,560
Nagalama	..	70	7	63	7	3	..	..	7	263	40	1,015
Nkokonjeru	..	158	17	141	7	18	..	4	..	281	130	2,628
Kamuli	..	187	13	174	12	29	..	4	2	307	100	1,890
Bikira	..	153	4	149	4	2	..	..	..	577	60	1,165
Rubaga	..	104	4	100	3	4	..	..	3	273	456	729
Mitala Maria	..	309	19	290	18	20	5	..	..	492	100	5,915
Villa Maria	..	308	12	296	7	2	5	..	2	489	..	3,186
Katende	..	93	6	87	5	5	..	..	..	209	23	1,509
Kisubi	..	72	7	65	12	12	7	..	2	140	65	2,340
Nyenga	..	75	1	74	2	5	12	1	..	98	55	540
Namilyango	..	31	4	27	2	..	..	..	2	107	53	479
Gayaza	..	115	1	114	6	31	4	..	..	290	63	1,128
Lwala	..	36	2	34	6	10	12	..	..	507	1,636	4,245
Nagongera	..	78	3	75	2	4	..	2	2	36	21	543
TOTAL	..	1,906	101	1,805	101	155	45	11	23	4,272	2,892	37,872

SECTION VI.—HOSPITALS AND DISPENSARIES.

127. The following sums were spent by the Public Works Department on medical buildings:—

New Works At:—

	£
MULAGO—	
One junior officer's bungalow	1,280
Fencing Mulago Hospital	919
Two wards, Mental Asylum	1,991
JINJA—	
Two female wards and one male ward in the Native Hospital ..	4,009
Extension to European Hospital	1,040
Extension to Asiatic Hospital	1,800
TORORO—	
Hospital unit	1,379
MISCELLANEOUS WORKS—	
Miscellaneous minor works and improvements to buildings ..	147
Maintenance of buildings	1,413
	<hr/>
TOTAL ..	£13,978
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TABLE G.—MEDICAL UNITS, BEDS AND PATIENTS BY DISTRICTS.

	BUGANDA PROVINCE.					WESTERN PROVINCE.				EASTERN PROVINCE.							NORTHERN PROVINCE.							UGANDA PROTEC- TORATE.
	Entebbe District.	Mengo District.	Masaka District.	Mubende District.	TOTAL.	Toro District.	Ankole District.	Kigezi District.	TOTAL.	Busoga District.	Budama District.	Bugishu District.	Bugwere District.	Teso District.	Karamoja District.	TOTAL.	Lango District.	Bunyoro District.	Gulu District.	Chua District.	Madi Sub-District.	West Nile District.	TOTAL.	
Medical Units.																								
European Hospitals ...	1	1	...	...	2	...	...	...	...	1	...	...	1	...	...	2	...	...	...	...	...	...	...	4
Asian Hospitals ...	1	1	1	...	3	...	...	...	...	1	...	...	1	1	...	3	1	2	...	...	...	...	3	9
African Hospitals ...	1	2	1	1	5	1	1	1	3	2	1	1	1	1	1	7	1	3	1	1	1	1	8	23
Dispensaries ...	2	8	7	6	23	9	4	4	17	6	3	3	4	4	...	20	4	9	4	4	5	11	3	97
In-Patients.																								
BEDS AVAILABLE:																								
European ...	7	20	...	...	27	...	...	...	...	4	...	...	3	...	...	7	...	...	...	...	...	...	...	34
Asian ...	4	29	3	...	36	...	...	...	...	6	...	...	2	4	...	12	4	4	...	...	...	...	8	56
African Hospitals ...	48	311	128	27	514	40	49	54	143	114	40	20	79	56	10	319	54	81	40	33	53	40	301	1,277
African Dispensaries ...	20	...	39	43	102	18	56	85	159	88	34	40	85	47	...	294	47	...	8	...	...	15	70	625
TOTAL ...	79	360	170	70	679	58	105	139	302	212	74	60	169	107	10	632	105	85	48	33	53	55	379	1,992
CASES ADMITTED:																								
European ...	20	488	...	...	508	...	...	...	...	20	...	...	9	...	...	29	1	...	...	...	...	...	1	538
Asian ...	25	1,233	45	...	1,303	11	...	...	11	239	...	...	16	40	...	295	15	30	1	...	...	...	46	1,655
African ...	984	9,089	4,212	409	14,694	910	1,681	957	3,548	2,792	917	285	1,376	912	131	6,413	2,084	1,607	879	520	326	1,179	6,595	31,250
TOTAL ...	1,029	10,810	4,257	409	16,505	921	1,681	957	3,559	3,051	917	285	1,401	952	131	6,737	2,100	1,637	880	520	326	1,179	6,642	33,443
TOTAL NUMBER OF IN-PATIENT DAYS ...	17,579	133,990	48,695	7,520	207,784	10,049	28,814	23,156	62,019	43,890	15,906	1,690	3,087	17,800	1,713	84,086	36,129	23,589	10,637	7,494	10,241	23,336	111,426	465,315
AVERAGE DAILY NUMBER IN WARDS ...	48'16	367'1	133'4	206'0	569'1	27'5	78'9	63'4	169'9	120'0	43'5	4'6	8'4	48'7	4'6	230'3	98'9	64'6	29'1	20'5	28'0	63'9	305'2	1,274'3
Out-Patients.																								
Attendances ...	77,476	330,387	193,850	113,167	714,880	217,797	127,206	133,324	478,327	185,131	117,232	85,613	120,309	184,843	5,629	698,757	182,412	262,595	103,378	88,748	63,464	303,372	1,003,969	2,895,933
Total New Cases.																								
European ...	409	1,530	26	17	1,982	19	69	40	128	365	116	4	64	76	8	633	58	110	62	12	3	50	295	3,038
Asian ...	909	2,895	708	25	4,537	110	108	28	246	1,418	964	9	46	695	4	3,136	109	556	184	186	7	58	1,100	9,019
African ...	12,279	52,800	23,781	6,257	95,117	16,174	14,377	11,854	42,405	33,569	11,225	7,242	22,844	22,574	2,652	100,106	40,976	20,251	10,072	9,344	6,372	24,750	111,765	349,393
TOTAL ...	13,597	57,225	24,515	6,299	101,636	16,303	14,554	11,922	42,779	35,352	12,305	7,255	22,954	23,345	2,664	103,875	41,143	20,917	10,318	9,542	6,382	24,858	113,160	361,450
DISPENSARIES TOTAL ...	14,999	47,100	26,543	25,992	114,634	69,149	22,509	18,331	109,989	65,018	27,918	26,312	30,819	59,132	...	209,199	22,832	16,597	14,244	11,278	13,794	58,094	136,839	570,661
MEDICAL EXAMINATION TOTAL ...	1,630	9,285	9,446	714	21,075	1,257	27,146	663	29,066	1,761	555	109	1,139	1,620	279	5,463	2,061	11,308	12,067	2,866	18,913	53,761	100,916	156,520
GRAND TOTAL ...	30,226	113,610	60,504	33,005	237,345	86,709	64,209	30,916	181,834	102,131	40,778	33,676	54,912	84,097	2,943	318,537	66,036	48,822	36,569	23,686	39,089	136,713	350,915	1,088,631
Surgical Operations.																								
General Anaesthesia ...	60	1,538	169	49	1,816	50	195	96	341	772	81	3	165	217	...	1,238	387	209	79	31	21	49	776	4,171
Spinal Anaesthesia ...	1	3	201	...	205	...	...	...	...	...	...	...	8	...	...	8	...	...	...	...	...	...	...	218
Other Anaesthesia ...	94	409	115	5	623	35	22	42	99	677	127	7	36	40	9	896	207	184	142	...	...	135	685	2,303
TOTAL ...	155	1,950	485	54	2,644	85	217	138	440	1,449	208	10	209	257	9	2,142	594	398	221	36	33	184	1,466	6,692

A LIST OF SUB-DISPENSARIES OPEN OR UNDER CONSTRUCTION IN 1937.

Name.	District.	New Cases including examina- tions.	Re- attendances 1937.	Year Opened.	Remarks.
Mukono ..	Mengo ..	6,570	19,726	1923	Permanent buildings.
Kasangati ..	" ..	7,714	18,332	1923	" "
Bowa ..	" ..	9,439	36,585	1923	" "
Kalagala ..	" ..	6,592	16,950	1930	" "
Kome ..	" ..	710	1,704	1923	Island Dispensary. Temporary buildings.
Buvuma ..	" ..	1,237	3,769	1923	Island Dispensary. Temporary buildings.
Nakasongola ..	" ..	4,676	11,595	1931	Temporary buildings.
Wakiso ..	" ..	10,162	21,709	1923	Permanent buildings.
Mpigi ..	" ..	9,021	12,502	1923	Permanent buildings with ward.
Buwama ..	" ..	5,978	6,712	1937	Temporary buildings.
Mubende Hill	Mubende	1,258	3,038	1926	" "
Mityana ..	" ..	8,438	14,659	1923	Permanent buildings.
Kibale ..	" ..	5,464	19,193	1926	Temporary buildings.
Kakumiro ..	" ..	5,487	12,184	1928	" "
Madudu ..	" ..	3,450	9,740	1928	" "
Kyanasoke ..	" ..	2,475	8,748	1931	" "
Kalisizo ..	Masaka ..	7,674	28,269	1923	" "
Kalungu ..	" ..	6,075	15,978	1927	" "
Kiebbe ..	" ..	3,253	5,704	1936	" "
Kalangala ..	" ..	1,821	6,595	1923	Island Dispensary. Temporary buildings.
Rakai ..	" ..	4,568	8,666	1927	Temporary buildings.
Lyantonde ..	" ..	5,253	22,125	1927	Permanent buildings.
Sembabule ..	" ..	527	821	1937	Temporary buildings.
Kaliro ..	Busoga ..	10,661	5,662	1927	Permanent buildings with ward.
Namwendwa	" ..	14,964	18,489	1925	" " " "
Namung'alwe	" ..	11,240	8,566	1925	" " " "
Bugiri ..	" ..	8,963	8,634	1932	Temporary buildings.
Nsinze ..	" ..	10,726	5,479	1932	" "
Buyende ..	" ..	8,464	8,539	1936	" "
Nagongera ..	Budama	10,700	20,120	1927	Permanent buildings with ward.
Butaleja ..	" ..	9,120	15,969	1927	" " " "
Masafu ..	" ..	8,441	16,680	1926	" " " "
Budadiri ..	Bugishu	12,252	22,386	1922	Temporary buildings.
Butiru ..	" ..	6,416	4,276	1931	" "
Bulucheke ..	" ..	7,644	12,864	1931	" "
Budaka ..	Bugwere	8,278	4,886	1930	Permanent buildings with ward.
Bukedia ..	" ..	9,653	13,530	1926	" " " "
Kamuge*	" ..	11,905	14,220	1922	" " " "
Nakaloke ..	" ..	12,888	21,832	1936	Pisé de terre building.
Katakwe ..	Teso ..	10,776	12,226	1926	Temporary buildings.
Serere ..	" ..	21,550	29,710	1924	Permanent buildings.
Amuria ..	" ..	19,058	20,979	1924	" "
Kamod ..	" ..	8,733	12,709	1931	Temporary buildings.
Kakabara ..	Toro ..	5,343	3,363	1922	" "
Kasule ..	" ..	7,075	11,795	1930	" "
Butiti ..	" ..	9,902	11,275	1925	" "
Bundibugyo ..	" ..	12,533	15,708	1926	Permanent buildings.
Kisomoro ..	" ..	7,349	9,529	1926	" "
Bugoye ..	" ..	5,020	9,685	1932	Temporary buildings.
Mpondo ..	" ..	7,083	12,175	1932	" "
Kanyampara	" ..	8,010	20,680	1933	" "
Rwaitengya ..	" ..	5,834	4,518	1932	" "
Bushenyi ..	Ankole ..	7,748	8,425	1922	Permanent buildings.
Lwasamaire ..	" ..	5,095	12,574	1922	" "
Kinoni ..	" ..	5,755	11,944	1931	" "
Ruhoko ..	" ..	3,911	6,030	1922	Temporary buildings.
Rukungiri ..	Kigezi ..	6,811	10,474	1922	Permanent buildings.
Kisolo ..	" ..	3,953	25,586	1922	" "
Mpalo ..	" ..	4,290	14,971	1922	" "
Kinkizi ..	" ..	3,277	10,591	1922	Temporary buildings.
Aduku*	Lango ..	8,334	17,168	1922	Permanent buildings with ward.
Kaberaimaido*	" ..	12,613	18,320	1931	" " " "

* The figures from these dispensaries are included in Tables V and VI.

A List of Sub-Dispensaries Open or Under Construction in 1937—*contd.*

Name.	District.	New cases including examination.	Re-attendances 1937.	Year Opened.	Remarks.
Aboki ..	Lango ..	16,933	36,657	1931	Temporary buildings.
Omoro ..	" ..	6,480	6,629	1935	" "
Dwoli ..	Bunyoro	3,272	26,065	1925	" "
Kiziranfumbi	" ..	1,963	25,881	1925	" "
Kisaru ..	" ..	1,527	16,712	1931	" "
Masindi Port ..	" ..	1,684	6,258	1925	Permanent buildings.
Kiriyandongo	" ..	2,673	26,630	1926	" "
Kinyala ..	" ..	1,482	10,564	1925	Temporary buildings.
Bujenje ..	" ..	2,408	15,282	1932	" "
Kijunjubwa ..	" ..	461	2,576	1933	" "
Bulisa ..	" ..	1,227	12,532	1935	" "
Gere-Gere ..	Chua ..	4,649	15,251	1935	" "
Paranga ..	" ..	1,626	1,031	1934	" "
Palabek ..	" ..	3,275	6,421	1936	" "
Lokung ..	" ..	3,771	16,818	1936	" "
Minakulu ..	Gulu ..	4,350	7,364	1930	Permanent buildings.
Attiak ..	" ..	7,314	14,389	1931	" "
Awach† ..	" ..	5,926	5,621	1932	" "
Abbia Ferry ..	" ..	7,549	4,645	1934	Temporary buildings.
Ajumani ..	Madi ..	4,274	6,363	1927	Permanent buildings.
Zaipi ..	" ..	4,088	1,820	1931	Temporary buildings.
Ubongi ..	" ..	1,600	2,545	1933	" "
Laropi ..	" ..	2,335	2,545	1931	" "
Lufori ..	" ..	1,497	2,235	1935	" "
Terego ..	West Nile	5,001	26,210	1925	Permanent buildings.
Pakwach ..	" ..	20,647	19,812	1930	Temporary buildings.
Pai-Ida ..	" ..	4,206	15,397	1930	Permanent buildings.
Okollo ..	" ..	5,529	22,272	1934	Temporary buildings.
Warr ..	" ..	4,033	10,302	1934	" "
Aringa* ..	" ..	8,102	9,319	1928	" "
Udupe ..	" ..	4,451	1,990	1932	" "
Ladongo ..	" ..	4,629	5,622	1932	" "
Mocha ..	" ..	2,732	3,882	1936	" "
Koboko ..	" ..	6,360	4,519	1937	" "
Kubala ..	" ..	506	894	1937	" "

*The figures from this dispensary are included in Tables V and VI.

†A travelling nursing orderly is employed in Gulu district and the people who attend his clinics are included under Awach.

DISTRICT MATERNITY CENTRES.

Name.	District.	Number of Confinements.	Number of other Admissions.	Number of Women for Ante-Natal Supervision.	Number of Infants for Post-Natal Welfare.
Bugembe ..	Busoga ..	128	4	524	275
Kamuge ..	Bugwere ..	141	..	1,890	..
Butaleja ..	Budama ..	74	2	no return	..
Serere ..	Teso ..	106	5	802	1,019
Kibale ..	Mubende ..	37	1	485	546
Butiti ..	Toro ..	26	1	852	892
Kisolo ..	Kigezi ..	4	..	154	796
Mpalo ..	Kigezi ..	11	..	831	1,772

TABLE H.

In the following table are set out the amounts of some preparations manufactured, wholly or partly, in the Pharmaceutical Section of the Medical Store during the past six years:—

	1932	1933	1934	1935	1936	1937
Tincture <i>pts.</i>	4,324	3,137	2,217	2,305	1,789	2,109
Liniments „	3,202	2,273	2,852	3,798	2,486	4,494
Ointments <i>lbs.</i>	14,061	11,376	17,848 $\frac{1}{2}$	16,308	16,880	16,932
Dusting powder „	813	320	700	400	501	400
Infusions, conc. .. <i>pts.</i>	864	464	482	650	1,485	1,457
Hard soap <i>lbs.</i>	9,156	..	..	2,284	3,600	1,290
Soft soap „	..	9,855	11,027	14,451	6,899	17,684
Sundries „	1,773	1,277	506 $\frac{1}{2}$	2,540	1,994	2,414
Bismuth sod. pot. tart. „	45	33 $\frac{1}{2}$	42 $\frac{1}{2}$	7 $\frac{1}{2}$	..	..
Cataplasma kaolin „	..	640	1,003	1,045	1,875	1,868
Insecticide <i>pts.</i>	..	292	746	1,709	1,454	2,398
Oxymels and syrups .. <i>lbs.</i>	..	1,323	1,175	1,554	1,932	1,709
Glycerine preparations ..	..	226	522	457	482	553
Liquors <i>pts.</i>	..	786	2,032	2,828	2,526	1,234
Spirits „	..	468	653	966	298	740
Metal polish <i>bots.</i>	..	..	..	686	1,585	940
		cc.	cc.	cc.	cc.	cc.
INJECTIONS AND SUSPENSIONS—						
Bismuth oxid. 30cc. <i>bots.</i>	..	..	166,460	410,170	432,540	767,950
Bismuthsalicyl. in oil ..	..	..	..	..	960	..
Emetine hydrochlor. 10cc. <i>bots.</i>	..	1,800	5,720	10,600	11,710	7,180
Quinine bihydrochlor. 10cc. „	..	3,500	11,360	15,000	22,240	30,350
Camphor in oil .. .. „	..	..	490	1,720	2,540	5,280
Thiosinamin .. .. ..	..	..	330	..	..	..

SECTION VII.—REPORT ON PRISONS.

128. The details for each Protectorate Prison are as follows:—

				Accommodation available.	Daily average in Prison.	Daily average on sick list.	Deaths.
Central Prison, Luzira	..	..	..	850	867	14·09	17
Masaka	..	..	..	65	30	0·16	1
Mubende	..	..	..	26	3	1·03	..
Jinja	..	..	..	28	42	2	..
Mbale	..	..	..	100	83	5	..
Soroti	..	..	..	140	39	1	1
Tororo	..	..	..	16	2	0·05	..
Moroto	..	..	..	41	24	0·17	..
Masindi	..	..	..	34	36	3	..
Lira	..	..	..	120	42	4	..
Arua	..	..	..	77	75	9	2
Gulu	..	..	..	78	59	4·05	1
Kitgum	..	..	..	..	..	..	1
Mbarara	..	..	..	37	26	0·09	..
Kabale	..	..	..	55	31	4	..
Fort Portal	..	..	..	15	12	0·88	..
TOTAL	..	..	..	..	1,372	48·52	23

129. One prisoner died at Kitgum where there is now no Protectorate prison. The morbidity and death rates are not given since, in most cases, the numbers of prisoners resident are too small for accurate conclusions to be drawn. The commonest complaints were malaria, tropical ulcers, minor injuries, and diseases of the respiratory tract. There were 23 deaths. The causes were:—

Chronic meningitis	..	..	1	Tuberculosis	..	..	1
Cerebro-spinal meningitis	..	..	4	Typhoid fever	..	..	1
Pneumonia (unclassified)	..	..	4	Blackwater fever	..	..	1
Leprosy	..	..	1	Aortic disease	..	..	5
Epilepsy	..	..	1	Local injury	..	..	2
Nephritis	..	..	1	Dysentery	..	..	1

130. The rations at the Central Prison have been referred to in Section III, page 39. The approved ration (with minor alterations which became necessary from time to time owing to local conditions) was used in other prisons.

131. Sites for provincial prisons were considered in accordance with the recommendations of the Prison Commission. A site for a prison has been selected at Fort Portal, but no final decision has been reached in the Eastern and Northern Provinces pending further investigation into water supplies.

NATIVE ADMINISTRATION PRISONS.

132. The standard of Native Administration prisons continues to improve, but diets are still in many cases inadequate, and overcrowding has not been eliminated everywhere. The health of the inmates was generally satisfactory. In all districts, medical officers or their assistants paid regular visits to the prisons.

SECTION VII A.—PROTECTORATE MENTAL HOSPITAL.

133. There were 58 males and 15 females admitted for observation as to their state of mind. Two males died whilst under observation, and 46 males and 10 females were certified and adjudicated lunatics by a magistrate. Two Asian males were admitted; one was repatriated, and the other still remains. Experiments with occupational therapy, which includes the manufacture of woollen articles, have proved encouraging.

134. There were 24 deaths:—

	Males.	Females.
Bacillary dysentery	2	..
Dysentery (unclassified)	1	..
Pneumonia (unclassified)	4	..
Lobar pneumonia	2	..
Broncho-pneumonia .. .. .	..	1
Heart failure	1	..
Toxaemia	1	..
Cerebro-spinal meningitis	1	..
Cerebral-thrombosis	1	..
Tuberculous peritonitis	1	..
Pulmonary tuberculosis	1	1
Chronic nephritis	1	..
Chronic meningo-encephalitis	1	..
Syphilitic aortitis	1	..
Epilepsy	1	..
Cerebral haemorrhage .. .. .	..	1
Interstitial nephritis .. .. .	..	1
Asthenia .. .. .	..	1

MENTAL HOSPITAL.

TABLE SHOWING THE MOVEMENTS OF THE MENTAL HOSPITAL POPULATION FOR EACH YEAR FOR THE YEARS 1922—1937
TOGETHER WITH RECOVERY AND DEATH RATES.

Year.		First Admissions.			Re-Admissions.			Total Admissions.			Total Number under Treatment.			Number Discharged.			Number Died.			Number Remaining at end of Year.			Average Daily number on Register.			Percentage of Discharges on Total Admissions.			Percentage of Deaths on Average Daily Number on Register.		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
1922	..	11	3	14	1	..	1	12	3	15	36	6	42	7	1	8	9	..	9	20	5	25	20	3	23	58.3	33.3	53.3	45.0	..	21.4
1923	..	31	6	37	..	..	..	31	6	37	51	11	62	12	3	15	10	2	12	29	6	35	26	6	32	38.7	50.0	40.5	38.4	33.3	37.5
1924	..	20	8	28	..	..	..	20	8	28	49	14	63	8	..	8	12	3	15	29	11	40	29	9	38	40.0	..	28.5	41.3	33.3	39.4
1925	..	26	4	30	..	..	..	26	4	30	55	15	70	3	..	3	9	3	12	43	12	55	32	11	43	11.5	..	10.0	28.1	27.2	27.9
1926	..	29	13	42	1	..	1	30	13	43	73	25	98	5	1	6	16	4	20	52	20	72	48	16	64	16.6	7.6	13.9	33.3	25.0	31.2
1927	..	15	5	20	2	..	2	17	5	22	69	25	94	15	7	22	17	4	21	37	14	51	38	18	56	88.2	140.0	100.0	44.7	22.2	37.5
1928	..	21	5	26	3	1	4	24	6	30	61	20	81	2	..	2	18	1	19	41	19	60	37	16	53	8.3	..	6.6	48.6	6.2	35.8
1929	..	22	7	29	1	..	1	23	7	30	64	26	90	10	4	14	14	1	15	40	21	61	37	20	57	43.4	57.1	46.6	37.8	5.0	26.3
1930	..	14	3	17	1	..	1	15	3	18	55	24	79	6	4	10	9	2	11	40	18	58	37	19	56	40.0	133.3	55.5	24.3	10.5	19.6
1931	..	16	6	22	1	1	2	17	7	24	57	25	82	5	3	8	6	4	10	46	18	64	42	17	59	29.3	42.8	33.3	14.3	23.5	16.9
1932	..	18	2	20	1	..	1	19	2	21	65	20	85	5	..	5	14	2	16	46	18	64	47	18	65	26.3	..	22.9	29.8	11.1	25.0
1933	..	14	2	16	..	..	..	14	2	16	60	20	80	5	..	5	10	3	13	45	17	62	45	17	62	35.7	..	31.2	37.4	17.6	20.9
1934	..	20	7	27	2	..	2	22	7	29	67	24	91	7	1	8	17	5	22	43	18	61	44	17	61	31.8	14.2	27.6	38.6	29.4	36.0
1935	..	24	7	31	..	..	..	24	7	31	67	25	92	3	2	5	4	1	5	60	22	82	45	18	63	12.5	28.5	16.1	8.8	5.5	7.9
1936	..	46	13	59	2	..	2	48	13	61	108	35	143	21	4	25	20	7	27	67	24	91	70	23	93	43.7	30.7	41.0	28.5	30.4	29.0
1937	..	59	16	75	3	1	4	62	17	79	129	41	170	13	7	20	19	5	24	97	29	126	77	27	104	21.0	41.2	25.3	24.7	18.5	23.1
TOTALS	..	386	107	493	18	3	21	404	110	514	..	..	..	127	37	164	204	47	251	..	..	..	..	..	..	..	..	..	..	..	..

SECTION VIII.—METEOROLOGY.

All available information is printed in the Blue Book.

SECTION IX.—SCIENTIFIC.

135. Scientific papers published:—

Dr. L. J. A. Loewenthal.

“A note on Tick-typhus in the Eastern Province of Uganda”.
East African Medical Journal, Vol. XIII, p. 141.

“The place of Logic in Medical Education”. East African
Medical Journal, Vol. XIII, p. 204.

“Diseases of the Skin in Negroes”. Journal of Tropical
Medicine and Hygiene from September, 1936, to December,
1937. A series of articles published at various times.

Dr. Loewenthal and Messrs. M. G. de Courcy-Ireland and
H. R. Hosking.

“A survey of Health and Agriculture in Teso, Uganda”.
Uganda Government Press, Entebbe.

Mr. E. G. Gibbins.

“Notes on the Breeding Habits of some House Frequenting
Flies in Uganda”. East African Medical Journal, Vol. XIII,
p. 318.

Mr. C. E. Roberts, F.R.C.S.

“Peptic Ulcer in Uganda”. East African Medical Journal,
Vol. XIV, p. 88.

Dr. R. E. Barrett.

“A Portable Steam Disinfector”. East African Medical
Journal, Vol. XIV, p. 132.

“An enquiry into Diet and Nutrition amongst Indian
school children in Kampala with special reference to the
Consumption of Milk”. East African Medical Journal,
Vol. XIV, p. 199.

Dr. H. C. Trowell.

“Pellagra in African Children”. Archives of Disease in
Childhood, Vol. 12, No. 70, August, 1937.

THE ANNUAL REPORT OF THE UGANDA MEDICAL SCHOOL.

Third Examination Part II (Medicine, Midwifery, Surgery).

136. One student who failed in 1936 was re-examined. He failed in obstetrics and was referred for five months.

137. Following the extension of the curriculum from five to six years, as noted in the 1936 Report, no other candidate was presented for examination.

Third Examination Part I (Pathology and Pharmacology).

138. Five candidates were presented. Three passed. One was referred in pathology, to be re-examined in May, 1938. One will discontinue the course, this being his second unsuccessful attempt.

Second Examination (Anatomy and Physiology).

139. Seven candidates, six medical and one veterinary student who wished to change to the medical course, were presented. Five passed; one was referred for one year; one will discontinue the course.

First Examination (Preliminary Sciences, M.A.V. Class, Makerere College).

140. Seven students had entered for medicine. Five passed. One veterinary student wished to transfer to medicine, and having passed, was accepted.

141. In 1938 there will be in training at the Medical School (third, fourth, fifth and sixth years) twenty students, at Makerere College (first and second years) twenty-nine students. The details are as follows:—

Year.			Colony.			
			Uganda.	Tanganyika.	Kenya.	Zanzibar.
			Total.			
6th	..	..	4	..	..	..
5th	..	..	2	1	1	..
4th	..	..	4	1	..	..
3rd	..	..	5	1	1	..
2nd	..	..	9	3	1	1
1st	..	..	11	3	1	..

142. *External Examiners.*—

P. S. Bell, M.R.C.P. (Lond.), F.R.C.S.E., Tanganyika, Anatomy, Surgery, Midwifery.

N. Chilton, B.A. (Honours), Oxon, B.M., B.Ch., Tanganyika, Physiology, Pharmacology.

G. L. Timms, M.B., B.S., M.R.C.S., L.R.C.P., Kenya, Pathology.

Stanley Forrest, M.B., Ch.B., Uganda, Medicine.

G. ap Griffith, Ph.D., B.Sc. (Wales), Uganda, Physics.

Mrs. Minnie ap Griffith, Ph.D., B.Sc. (Wales), Uganda, Chemistry.

F. H. Lindeman, Esq., F.L.S., Tanganyika, Biology.

143. The more significant comments by the external examiners were as under :—

Dr. Bell considered that though the standards reached in the anatomy papers were very high, those of the orals were very variable.

Dr. Chiltern was impressed by most candidates' ignorance of the elementary facts in chemistry. He pointed out that while the students were familiar with the ordinary biochemical tests they did not appreciate the chemical reactions underlying them. He stressed the need for raising the standard of knowledge of the preliminary sciences.

Dr. G. ap Griffith came to the conclusion that the syllabus in physics, as at present laid down, is not nearly covered and that either the syllabus must be reduced or the time allocated for the teaching of physics extended. The lack of apparatus was commented on.

Dr. M. ap Griffith felt that candidates had not received a proper grounding in fundamental chemistry and that insufficient time had been allowed to work through a somewhat ambitious syllabus. The apparatus available was in no way adequate.

Mr. Lindeman commented on the inadequacy of the laboratories, the insufficient teaching staff, the lack of opportunity for outdoor practical work and dissection, and the need for proper equipment and a museum. This has been referred to on page 8.

144. The visit of the Commission appointed by the Secretary of State for the Colonies to enquire into higher education in East Africa, combined with the recommendations in their report, will do much to assist in the development of science teaching from the elementary schools upwards. It will, however, take years to reach the standards expected in the 1st M.B. examinations at home and in the meantime the position must just be accepted. By this the Principal does not suggest that there should be any relaxation in the demand for improved standards but that it must be appreciated that the local educational system is still in its infancy and that there is no short cut to its full and healthy development.

145. The experiment of grafting on to a comparatively elementary knowledge of the preliminary sciences and pre-clinical studies, a full and comprehensive clinical training has given cause for no regrets. Since the inauguration of higher medical education in 1923, thirty-five pupils have received the Certificate of the Medical School, and have been licensed to practice: two of these are in the service of the Zanzibar Government and are much appreciated. Thirty are in the service of the Uganda Government and of these, for various reasons, five have not come up to expectations and are employed in posts under constant supervision by medical officers; fifteen are good and reliable workers; ten have outstanding characters and professionally have received the highest praise.

146. The compliment paid to the Medical School in the Report of the Commission on higher education is much appreciated by all associated with the school. For the information and encouragement of both teachers and graduates the following passage is quoted: "Higher

education in East Africa has approached nearest to degree standard in the Medical School. . . . We have high hopes that Mulago may continue to produce in increasing numbers medical men with drive and initiative to solve the problems of rural sanitation, tropical diseases and preventive medicine amongst an African population”.

TRAINING OF NURSES.

147. *Male (Nursing Orderlies)*.—Thirteen were recruited at the beginning of the year. Eleven passed the first examination for the nursing certificate. Two will be discharged as unsuitable for further training.

Eleven sat for the second examination; eight passed; three were referred on account of indifferent reports from the ward sisters.

148. *Female (Nurses)*.—Seven were entered for the first examination. All passed.

Seven were put up for the second examination. All passed.

149. The Department is indebted to Dr. R. Y. Stones, Principal of the Church Missionary Society Hospital, Mengo, for providing the external examiners, Nursing Sisters Miss Flack and Miss Bond, to conduct these examinations.

TRAINING OF DISPENSERS.

150. Two pupils were entered for the first examination for the dispenser's certificate. Both passed.

Two were presented for the second examination. Both passed.

One completed his training at the end of his third year and succeeded in obtaining the dispenser's certificate.

The examination was conducted by Mr. A. S. Brown, M.P.S., of the Medical Store, Entebbe.

TRAINING OF HEALTH ORDERLIES.

151. This has been already referred to in Section I.

LABORATORY REPORT.

152. The training of laboratory orderlies was continued. At the examinations in July and December four orderlies passed for promotion to Grade IV and one to Grade V.

153. Fourteen stations are now provided with laboratory orderlies, though all of these have not yet completed the full syllabus of training. Those not yet qualified will be brought back to Kampala for further training as opportunity offers.

154. The total number of examinations carried out in the laboratory was 50,464. The following is a brief account of the work done:—

(1) PARASITOLOGY—

Blood films	..	..	..	..	..	12,870
Dark ground examinations	..	..	..	..	..	29
Faeces	..	..	..	..	..	4,185
Urine	..	..	..	..	..	20

(2) SEROLOGY—

(a)	(1)	Kahn test on sera	..	..	..	20,095
	(2)	Kahn test on cerebro-spinal fluid	..	..	..	84
(b)		The Wassermann reaction	..	..	..	1,975
(c)		Gonococcal complement fixation tests	..	..	..	26
(d)		Agglutination tests—Enteric group	..	..	..	352
		Brucella group— <i>Br. melitensis</i> and <i>abortus</i>	..	..	..	48
		Weil-Felix Reaction	..	..	..	206

(3) BACTERIOLOGY—

(a)		Blood cultures	..	..	..	40
(b)		Urine	..	..	..	43
(c)		Faeces cultures	..	..	..	116
(d)		Sputum for <i>M. tuberculosis</i>	..	..	..	813
		and <i>B. pestis</i>	..	..	..	377
(e)		Cerebro-spinal fluid	..	..	..	174
(f)		Swabs and smears	..	..	..	632
(g)		Skin scrapings	..	..	..	6
(h)		Vaccines	..	..	..	33
(i)		Sterility tests on samples of drugs prepared for injection at the medical store	..	..	..	88
(j)		Water samples	..	..	..	54

(4) CLINICAL PATHOLOGY—

(a)		Blood	..	..	..	1,747
(b)		Cerebro-spinal fluid	..	..	..	515
(c)		Joint, pleural or ascitic fluids	..	..	..	22
(d)		Urine	..	..	..	3,621
(e)		Faeces	..	..	..	48
(f)		Miscellaneous examinations	..	..	..	6

(5) Biochemical examinations 765

(6) Medico-legal examinations 122

(7) Autopsies and histo-pathology—

(a)		Autopsies	..	..	..	313
(b)		Histo-pathological examinations	..	..	..	558

(8) CHEMICAL EXAMINATIONS—

		For the Medical Department	..	..	..	167
		For the Police Department	..	..	..	160
		For the Kenya and Uganda Railways and Harbours	..	..	..	2
		For the Water Section of the Public Works Department	..	..	..	151
		For the Veterinary Department	..	..	..	1

REPORT OF THE GOVERNMENT DENTAL SURGEON.

155. The treatment of officials, European and Asiatic, is shown in the following tables:—

(1) Appointments 1,421

(2) The following conditions were treated:—

Caries simplex	542
Extractions	334
Pyorrhea	39
Peri-odontitis	40
Abcess	28
Erosion	43
Gingivitis	15
Pulpitis	24

(3) Conservation work:—

Silver amalgam stoppings	379
Porcelain cement stoppings	189
Zinc oxide stoppings	94
Inlays	7
Carbolized resin dressings	75
Scalings	203
Zinc chloride applications	97

(4) Prosthetic work 36

Repairs 53

(5) In addition to weekly attendances at Entebbe, the following stations were visited:—

Jinja, Mbale, Masaka, Mbarara, Fort Portal, and Masindi.

REPORT OF THE ENTOMOLOGIST.

Medical Entomology.

The investigations on the alleged connection between the cotton crop and the incidence of plague were concluded. The results, which have been submitted for publication, indicate that there is no direct correlation.

Tests carried out with ferrets in the destruction of rats were unsatisfactory, because as the animals were males, their size prevented them from reaching places easily accessible to rodents. Two female ferrets are now being trained.

A rat and flea survey of the plague-free part of Mubende district was made. *R. rattus* appeared to be absent. *M. coucha* and *A. abyssinicus* occurred more frequently in native dwellings than in the neighbourhood of Kampala, and had on them a greater number of fleas of the *Xenopsylla* type than usual. *X. cheopis* was not found.

As far as could be seen from other investigations in plague-free areas, *R. rattus* was absent except in the Paranga county of Gulu district. *X. cheopis* was found on rodents in the West Nile and in Gulu.

Mosquitoes.

Larvicides.—Experiments with cotton seed oil were not satisfactory as the oil did not spread.

Surveys.—Mosquito surveys of the aerodromes at Port Bell, Butiaba and Laropi were made.

Stegomyia surveys were carried out in Kampala and Entebbe, and an anopheline survey in Kampala. A further survey was made in the neighbourhood of the Kabaka's palace, and a map showing the anopheline breeding places was prepared. A survey was made of the anopheline breeding places in Arua and conditions were found to be greatly improved compared with those in 1931 and 1932.

Searches made on passenger trains on arrival at Tororo from Kenya, on arrival at Kampala, immediately prior to departure from Kampala and on arrival at Tororo indicate that the incidence of mosquitoes in carriages was decreased greatly during the journeys between Tororo and Kampala, and between Kampala and Tororo.

Investigations were made into the incidence of *A. aegypti* in rural areas in the West Nile district. The species was found to occur in purely native areas up to 20 miles from non-African habitations. Further work on the incidence of *A. aegypti* in native huts was carried out in the vicinity of Kampala. The results were not conclusive and the investigation continues.

Identifications.

Mosquitoes and larvae have been identified for district medical officers and others.

Tsetse Flies.

Tsetse fly surveys of the Gulu district which were commenced in 1936, were completed. It was recommended that re-population of the restricted area should only be permitted very gradually under the strictest administrative control.

The clearings in the West Nile area and Madi were visited. Particular attention was paid to the experimental "rod-clearings" which are very long clearings extending only 10 yards from the banks of the stream. The principle is based on the suggestion that in the Northern Province *G. palpalis* only occurs in the very narrow strip of bush or forest adjoining the stream. Experience so far suggests that fly still remains in these clearings though it may be reduced in density.

A beginning was made in the study of the breeding places of those flies, especially *Musca* and *Stomoxys*, which frequent human habitations. It was found that a species of *Musca* sometimes breeds in very large numbers in coffee pulp used as manure.

Five batches of living larvae from cases of human myiasis were received, and adults were successfully reared. In four cases the adults proved to be *Lucilia* (species not determined) and in the other case the adults were *Chrysomia*, provisionally identified as *C. bezziana*. Specimens were sent to England for confirmation. The material from one case has been determined to be *Lucilia suprina* Mg., and the *Chrysomia* was *C. bezziana* Vill. The determinations from the other cases have yet to be received. The occurrence of *C. bezziana* is of great interest because, although a common cause of human myiasis in India, it has not been reported in human cases from Africa, or at all in Uganda.

Experiments were made in the destruction of *O. moubata* with various larvicides. Experiments with diatomite were conclusive. Ticks lived for a month in close contact with diatomite without suffering any ill effects. Further field tests with paradichlorobenzene-kerosene are not yet complete. Experiments in the disinfestation of clothing to prevent the conveyance of ticks into buildings, have shown that the Carnie disinfestor readily kills ticks.

Two European sanitary inspectors were given instruction in the identification of mosquitoes. A course of lectures, with a fortnight's practical work, was given to the students in training as health orderlies. A mosquito searcher was trained for Hoima, and fourteen days' training given to a mosquito-searcher from the Health Office, Kampala.

Report on an Investigation into the Value of Milk as an Adjuvant to the Diet of School Boys.

By Dr. J. Scott Brown and Dr. L. J. A. Loewenthal.

In March, after a routine examination of the boys attending the C.M.S. School at Mukono, 30 scholars, chosen at random, were each given half a pint of milk on every day of attendance. The milk was supplied from Koja Stock Farm, through the courtesy of the Veterinary Department. After this supplementary milk had been given on about 150 occasions, the physical examinations were repeated, 19 boys from the milk group being available.

2. The first two tables (Tables I and II) show that there was a significant extra gain in height in the milk group, but that the small superiority in weight gain was not statistically significant.

TABLE I.
Heights and percentage gains in height and weight.
MILK.

				Height 1937.	Percentage gain height.	Percentage gain weight.
Total	..	..	..	964·0	66·94	365·72
n	..	..	..	..	19	..
Mean	..	..	..	50·74	3·5231	19·2484
Standard deviation	..	..	..	..	±1·2611	±5·2549

CONTROL.

				Height 1937.	Percentage gain height.	Percentage gain weight.
Total	..	..	..	977·75	53·19	323·92
n	..	..	..	..	20	..
Mean	..	..	..	48·887	2·6595	16·1960
Standard deviation	..	..	..	..	±0·8962	±3·7753

TABLE II.
Comparison of percentage increases in height and weight.

				Mean percentage gain in height.	Mean percentage gain in weight.	n	Degrees of freedom.
Milk	..	..	..	3·5231	19·2484	19	18
Controls	..	..	..	2·6595	16·1960	20	19
t	..	..	..	2·4000	1·4339	..	..
P	..	..	..	0·02	0·2	..	..
Significance	..	..	..	+	Nil	..	..

The next step was to correlate statistically the increases in height and weight in the two groups. Table III shows very clearly that in the milk group increases in height and weight take place *pari passu*, while the absence of any significant correlation in the control group shows that their growth is not uniform. The scatter graphs present this conclusion in a more easily appreciable form; it will be seen that the milk group tends to increase proportionately in height and weight, thus producing a diagonal linear arrangement, while the controls give an unorganized picture, most of them showing a height increase of about 3 per cent. and a weight increase of about 15 per cent. irrespective of age. In the former group, in fact, there is only one boy who does not fit into a close linear pattern; in the control group there is no discernible pattern whatsoever.

TABLE III.
Correlation of percentage height and weight increases.

			r	P	Significance.	Degrees of freedom.
Milk Group	..	..	AB 0.7343	<<.01	++	17
Controls	..	..	A'B' 0.2267	>.01	Nil	18

4. These results seem to show that, in the case of children of well-to-do Baganda parents, optimum nutrition is not obtained from their normal diet. When supplementary milk is given, a measurable improvement results.

5. The incidence of dental caries, peri-odontal infections and signs of vitamin deficiency are given below (Table IV). It will be observed that dental caries is extremely infrequent as compared with English children; this is no doubt due to the beneficial effects of ultra-violet light and scanty clothing in infancy. The distribution of the above conditions is similar in the milk and control groups.

TABLE IV.
Dental and peri-odontal defects and signs of vitamin deficiency in all boys examined in 1937.

			Milk group (19).	Controls (35).	Total (54).
Caries simplex (boys with)	..	..	5	5	10
Number of carious teeth as fraction of total examined	..	..	6/512	10/928	16/1440
Recession of gums or pyorrhoea	..	..	8	12	20
Irregularity of teeth	..	..	5	6	11
Marked deposit of tartar	..	..	2	..	2
Phrynoderma and angular stomatitis	..	..	2	3	5

6. It is hoped to continue work on the above lines, with a view to determining (a) optimum nutritional standards for local children, and (b) the minimum amounts of milk, meat and other supplements which it may be desirable to add to local dietaries.

7. A fuller account of the above investigation appears in the "East African Medical Journal".

Appendix III.

(A) STAFF.

Principal Appointments, Promotions, Changes, etc.,

APPOINTMENTS:—

Dr. G. J. Murray to be Medical Officer	..	..	..	9- 1-37
Miss C. Chisholm to be Nursing Sister	..	..	..	3- 4-37
Miss M. Srawley to be Nursing Sister	..	..	..	3- 4-37
Miss E. G. Lane to be Nursing Sister	..	..	..	3- 4-37
Mr. J. H. Taylor to be Sanitary Inspector	..	..	..	15- 4-37
Miss M. W. Dempster to be Nursing Sister	..	..	..	29- 5-37
Dr. P. W. Hutton to be Medical Officer	..	..	..	30- 7-37
Miss E. S. Edminson to be Nursing Sister	..	..	..	6- 8-37
Dr. H. G. Wiltshire to be Senior Pathologist on transfer from Zanzibar	..	..	..	8- 9-37
Mr. G. W. B. Bateman to be Dental Surgeon	..	..	..	28- 9-37
Mr. J. D. Gillett to be Sanitary Inspector	..	..	..	28-10-37

ACTING APPOINTMENTS:—

	<i>from</i>	<i>to</i>
Dr. A. J. Boase, Medical Officer, as Medical Superintendent, Mulago	1- 1-37	29- 1-37
Miss G. R. Ibbs, Nursing Sister, as Senior Nursing Sister	1- 1-37	9- 2-37
Mr. G. Gillanders, Sanitary Inspector, as Instructor of Hygiene	1- 1-37	20- 4-37
Mr. C. E. Roberts, Medical Officer, as Specialist (Surgeon)	14- 1-37	9- 9-37
Dr. H. S. de Boer, M.C., Deputy Director of Medical Services, as Director of Medical Services	4- 3-37	24-11-37
Dr. C. R. Lutze-Wallace, Assistant Director of Medical Services, as Deputy Director of Medical Services	4- 3-37	14-11-37
Dr. E. A. C. Langton, Senior Medical Officer, as Assistant Director of Medical Services	4- 3-37	26- 5-37
Dr. J. M. Semple, Senior Medical Officer, as Assistant Director of Medical Services	5- 7-37	15-11-37
Mr. G. W. B. Bateman, as Dental Surgeon	12- 4-37	27- 9-37
Dr. N. C. Macleod, Medical Officer, as Senior Medical Officer, Northern Province	5- 7-37	31-12-37
Miss E. A. McGill, Senior Nursing Sister, as Lady Superintendent of Nurses	21-10-37	31-12-37
Dr. J. M. Semple, Senior Medical Officer, as Assistant Director of Medical Services	1-12-37	31-12-37

PROMOTIONS:—

Miss E. A. McGill, Nursing Sister, to be Senior Nursing Sister	..	1- 1-37
Dr. A. J. Boase, Medical Officer, to be Senior Medical Officer	..	28- 5-37

RESIGNATIONS:—

Miss E. M. Walton, Nursing Sister	..	28- 2-37
Miss C. Burton, Nursing Sister	..	17- 3-37
Miss D. A. Hunter, Nursing Sister	..	31-10-37
Miss J. H. E. Cook, Nursing Sister	..	12-11-37
Miss C. M. Guthrie, Nursing Sister	..	31-11-37

RETIREMENTS:—

Dr. L. D. Dennard, Medical Officer	..	5- 3-37
Mr. G. S. Bateman, Dental Surgeon	..	27- 9-37
Mr. R. J. Wilkinson, Sanitary Inspector	..	28- 9-37

CHANGES IN TITLES:—

Surgical Specialist to be Specialist (Surgeon).
 Senior Bacteriologist to be Senior Pathologist.
 Assistant Bacteriologist to be Pathologist.

HONOURS:—

Dr. W. H. Kauntze, M.B.E., to be a Companion of the Most Distinguished Order of Saint Michael and Saint George.

DEATH:—

Dr. E. A. C. Langton, Senior Medical Officer	..	27- 5-37
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**(B) List of Ordinances affecting Public Health, etc.,
enacted during the year.**

Public Health (Amendment) Ordinance, 1937.

Drainage and Sanitation Rules, 1937.

The Public Health (Financial Assistance for Drainage) (Kampala) Rules, 1937.

Registration of Medical Practitioners and Dentists.

The Ordinance governing registration came into force on the 1st July, 1913, since when and up to the 31st December, 1937, the following have been placed on the registers:—

Registered Medical Practitioners	..	..	..	203
Registered Medical Practitioner and Dentist	..	..	..	1
Dentists	..	..	..	8
Licensed Medical Practitioners..	..	..	..	107

The numbers actually on the registers on the 31st December, 1937, were:—

Registered Medical Practitioners	..	..	..	96
Dentists	..	..	..	8
Licensed Medical Practitioners..	..	..	..	46

Registration of Midwives.

The Ordinance governing registration came into force on the 31st March, 1927, since when and up to the 31st December, 1937, the following have been placed on the registers:—

Europeans and Asians	..	..	..	98
Africans	..	..	..	238

The numbers actually on the registers on the 31st December, 1937, were:—

Europeans and Asians	..	..	..	63
Africans	..	..	..	217

(C) Financial.

The expenditure on medical services was £176,500, which represents 9·0 per cent. of the total revenue of the Protectorate.

The total revenue of the Department was £11,400.

TABLE I.

SANCTIONED ESTABLISHMENT.

The establishment was as follows:—

ADMINISTRATIVE DIVISION.

Director of Medical Services.
Deputy Director of Medical Services.
Assistant Director of Medical Services.
Office Superintendent.
Lady Clerk and Stenographer.
European Storekeeper and Pharmacist.
Asiatic Assistant Storekeeper.
11 Asiatic Clerks.

EXECUTIVE DIVISION.

5 Senior Medical Officers.
32 Medical Officers.
2 European Hospital Superintendents.
3 European Assistant Superintendents and Dispensers.
1 Instructor of Hygiene.
15 European Sanitary Inspectors.
1 X-Ray Operator.
1 Senior Sub-Assistant Surgeon.
11 Sub-Assistant Surgeons.
1 Asiatic Assistant Pharmacist.
1 Asiatic Sanitary Inspector.
2 Asiatic Cooks for European and Asiatic Hospitals.

NURSING STAFF.

1 Lady Superintendent of Nurses.
2 Senior Nursing Sisters.
31 Nursing Sisters.
5 Asiatic Nurses and Probationers.

LABORATORIES DIVISION.

1 Senior Pathologist.
2 Pathologists.
1 Analytical Chemist.
3 European Laboratory Assistants.

SPECIAL APPOINTMENTS.

1 Medical Superintendent and Principal, Medical School.
1 Specialist (Surgeon).
1 Dental Surgeon.

AFRICAN ESTABLISHMENT.

1 African Laboratory Assistant.
30 Senior African Medical Assistants. (African Civil Service).
9 African Clerks. (African Civil Service).

A varying number of African staff, including nursing orderlies, laboratory orderlies, health orderlies, midwives, dispensing orderlies, clerks, cooks, dhobies, nurses, and also menial staff at all hospitals.

TABLE II.

ACTUAL EXPENDITURE.

	£	s.	cts.
PERSONAL EMOLUMENTS	101,803	9	75
OTHER CHARGES:—			
Stores, furniture and equipment	28,965	8	03
Upkeep of hospitals and medical school	8,296	17	56
Control of epidemic and endemic diseases	4,152	3	10
Promotion of public health and infant welfare ..	579	0	31
Leprosy relief measures	1,452	11	97
Miscellaneous services (including motor and bicycle allowances, local travelling and transport, travelling allowances, maintenance of motor vehicles, water charges, telephone rentals, upkeep of hospital grounds, courses of instruction to medical staff, uniforms for African staff, etc.)	18,800	0	27
	164,049	10	99
GRANTS TO MISSIONS:—			
Contribution to Lady Cornydon Maternity School and grants to missions for maintenance of midwifery centres and midwives	2,260	0	00
Grants to Church Missionary Society for training African Nursing Sisters	1,100	0	00
	3,360	0	00
SPECIAL EXPENDITURE:—			
Anti-malarial measures—afforestation	1,327	5	56
Yellow fever investigations	4,873	3	03
Replacement of three worn-out motor vans ..	881	10	66
Control of leprosy	2,000	0	00
	9,081	19	25

REVENUE.

The total amount of revenue collected was as follows:—

Hospital fees, sales of medicines and surgical stores, registration fees	11,406	10	13
Re-imbursements from Kenya and Uganda Railways and Harbours on account of medical and sanitary services	1,568	19	14
Contribution from Native Administrations towards cost of medical attendants and stores for sub-dispensaries	4,468	9	02
	21,443	18	29

TABLE III.
RETURN OF STATISTICS OF POPULATION.

The only statistics available are embodied in the Blue Book.

TABLE IV.
METEOROLOGICAL RETURN.

All available information under this head is embodied in the Blue Book.

Return of Diseases and Deaths for the Year 1937.

DISEASES.	TABLE V.					TABLE VI.	
	Remaining in Hospital at end of 1936.	Yearly Admissions.	Total Cases Treated.	Total Deaths.	Remaining in Hospital at end of 1937.	All Cases including both In- and Out-Patients.	
1. (a) Typhoid Fever	3	99	102	31	6	100	
(b) Paratyphoid Fever	..	8	8	1	3	9	
2. Typhus Fever ..	..	3	3	..	..	5	
3. Relapsing Fever	2	365	367	25	7	375	
4. Undulant Fever	..	..	..	..	..	..
5. Smallpox	..	..	..	..	..	..
6. Measles	1	240	241	4	5	866	
7. Scarlet Fever ..	..	..	..	..	..	..
8. Whooping Cough	1	75	76	..	1	680	
9. Diphtheria	..	5	5	..	..	8	
10. Influenza	9	673	682	7	9	8,410	
11. Cholera	..	..	..	..	..	..
12. Dysentery—							
(a) Amoebic ..	2	242	244	17	5	652	
(b) Bacillary ..	3	192	195	29	6	281	
(c) Unclassified	4	188	192	12	7	1,090	
13. Plague—							
(a) Bubonic ..	..	6	6	6	..	25	
(b) Pneumonic	..	1	1	1	..	1	
(c) Septicæmic	..	2	2	2	..	6	
14. Acute Poliomyelitis	..	3	3	1	1	4	
15. Encephalitis Lethargica ..	..	3	3	..	1	3	
16. Cerebro-spinal Fever	8	209	217	115	12	207	
17. Rabies	..	..	..	..	..	..
18. Tetanus	..	3	3	1	..	3	
19. Tuberculosis of the Respiratory System	15	283	298	92	16	520	
20. Other Tuberculous Diseases	2	57	59	20	5	93	
21. Leprosy ..	..	55	55	2	..	391	
22. Venereal Diseases—							
(a) Syphilis	57	1,385	1,442	41	53	26,962	
(b) Gonorrhœa	41	998	1,039	29	35	8,226	
(c) Other V.D.	7	339	346	3	20	1,680	
23. Yellow Fever ..	..	..	..	..	..	..

TABLES V AND VI—continued.

[illegible]

TABLES V AND VI—continued.

DISEASES.	TABLE V.					TABLE VI.	
	Remaining in Hospital at end of 1936.	Yearly Admissions.	Total Cases Treated.	Total Deaths.	Remaining in Hospital at end of 1937.	All Cases including both In- and Out-Patients.	
53. Appendicitis	3	49	52	3	2	68	
54. Hernia	24	516	540	39	21	781	
55. Cirrhosis of the Liver	3	54	57	15	..	68	
56. Other Diseases of the Liver and Biliary Passages	3	109	112	9	4	423	
57. Other Diseases of the Digestive System	13	866	879	58	19	29,147	
58. Nephritis (all forms)— (a) Acute	1	77	78	33	7	166	
(b) Chronic	3	75	78	25	4	107	
59. Other Non-venereal Diseases of the Genito Urinary System	33	862	895	24	27	2,654	
60. Diseases of Pregnancy, child birth and the Puerperal State— (a) Abortion	6	229	235	2	9	255	
(b) Ectopic Gestation .. .. .	..	5	5	..	3	9
(c) Toxaemias of Pregnancy .. .. .	..	3	3	2	..	6
(d) Other Conditions of the Puerperal State	16	2,012	2,028	73	33	2,013	
61. Diseases of the Skin, Cellular Tissue, Bones and the Organs of Locomotion	264	4,100	4,364	69	183	53,289	
62. Congenital Malformations and Diseases of Early Infancy	3	107	110	32	16	188	
(a) Congenital Debility .. .. .	..	..	..	..	..	18
(b) Premature Birth .. .. .	..	..	..	..	..	75
(c) Injury at Birth .. .. .	..	..	..	..	..	..
63. Senility .. .. .	..	10	10	3	..	11
64. External Causes— (a) Suicide	1	7	8	8	..	9	
(b) Other Forms of Violence	165	4,594	4,759	148	288	48,725	
65. Ill-defined Causes	18	523	541	47	17	2,165	
66. Malingering .. .. .	..	8	8	..	..	138
67. Ante-natal Supervision	6	285	291	..	8	9,115	
68. Normal Living Babies	12	1,550	1,562	..	13	1,539	
69. Post-natal Supervision .. .. .	..	1	1	..	..	7,694
TOTAL	1,043	33,289	34,332	1,799	1,038	361,450	
70. Examinations	1	154	155	..	3	156,520	
Dispensaries .. .. .	..	..	..	..	..	570,661
GRAND TOTAL	1,044	33,443	34,487	1,799	1,041	1,088,631	

